



UNIVERSITY OF PÉCS  
Faculty of Health Sciences

# SPORT- ÉS EGÉSZSÉGTUDOMÁNYI FÜZETEK SPORTS AND HEALTH SCIENCES NOTEBOOKS



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# SPORT- ÉS EGÉSZSÉGTUDOMÁNYI FÜZETEK SPORTS AND HEALTH SCIENCES NOTEBOOKS

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## **FOREWORD TO THE SPECIAL ISSUE: ECONOMIC AND SOCIAL IMPACT OF INTER- NATIONAL SPORT EVENTS BEFORE, DURING AND AFTER THE COVID-19 PANDEMIC**

International sport events became increasingly important in Hungary in the second part of the 2010s decade. After the bottom-up initiatives of Hungarian sport associations and other organizing committees the Hungarian sport strategy aimed to host more and more international sport events and the government provided state funds to the organization of the events. Governmental financial incentives should only be provided however if the social benefits are compensating the financial costs. Therefore, after sporadic papers in the topic, from this angle a new research stream emerged, started with Stocker and Szabó (2017) seminal article, which defined the different impact dimensions (sportprofessional, sportpolitical, social, economic, technological, and environmental) through which benefits, and costs can be compared.

From 2017 to early 2020 several major international sport events (World Championships, European Championships of Olympic sports) were organized in Hungary and most of them were researched by either similar or different research teams looking for the different types of impact the given international sport event would provide.

The COVID-19 pandemic has changed the international sport events landscape significantly as the usual solutions were

not applicable anymore and postponements, cancellations and new pro-protocols emerged.

In this environment did we decide to launch a special issue on economic and social impact of international sport events before, during and after the COVID-19 pandemic, as we were curious about unpublished before pandemic results and also during pandemic and after pandemic changes as well. We have received so many papers that we had to create one special issue in this topic and include some of the papers in another issue as well.

The special issue starts with the economic impact analysis of the Economic impact of 34th European Water Polo Championships 2020, where Szabó, Gáll and Bátor reported from their n=395 survey that foreign spectators spent on average HUF 51,460 daily without travel related costs and the event generated around 2 billion HUF estimated GDP.

The second paper introduces the economic and social impact of the UIPM 2019 Pentathlon World Championships, where Ragány reports also from survey method, that international attendees rated the event organization very high (4.52 and 3.84 from 1-5 scale) and not only did international attendees spend significantly

on transport, accommodation and food and dining but 43% them plan to come back to Hungary either next year or in the next five years.

Hoffbauer investigated World Wrestling Championships organized before the pandemic (2018 in Budapest) and 2021 European Wrestling Olympic Qualification Tournament which was organized during COVID-19 pandemic with the bubble system. This paper shows how the complex expenditure structure of an international sport event changes because of the restrictions imposed due to the pandemic and points out also how organizers can adapt to the new challenges.

Bátor, Németh, Hottea and Emódy focused their research attention into domestic spectator characteristics and their consumer behavior based on 7 international sport events organized in Hungary from n=3,155 sample. According to their results domestic spectators' expenditure is significantly influenced by age, dis-

tance between the residence and the competition, number of competition days viewed and use of accommodation.

Mezei, Polcsik and Perényi turns the attention to volunteering as a community service at sporting events. Their research was also based on the survey method with n=349 sample and their results show that there is significant difference between athletes and non-athletes in terms of the motivational factors that influenced participation in sporting events which roots mainly for items that are specifically related to sport, such as the possibility to meet an athlete in person and the love of sports.

All in all, we believe that all articles selected to this special issue shows an interesting angle of the impacts of international sport events and either provide unique empirical results or support assumptions emerged from the recent literature.

We hope you will enjoy the reading!

Miklós Stocker, PhD  
guest editor

Tamás Laczkó, PhD  
co-guest editor

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co-guest editor

PÉTER SZABÓ, PÉTER GÁLL, GÁBOR BÁTOR

ECONOMIC IMPACT OF 34TH EUROPEAN WATER POLO  
CHAMPIONSHIPS ORGANIZED IN BUDAPEST

A BUDAPESTEN MEGRENDEZETT 34. VÍZILABDA  
EURÓPABAJNOKSÁG GAZDASÁGI HATÁSA

**Abstract**

**Objective:** Since 2010, the Hungarian government has handled sport as a sector of national strategy. One of the key elements of this is the support of organizing international sports events in the domestic environment. The aim of this research is to study the economic and tourism-related effects of the travel and consumption habits of domestic and foreign sports tourists coming to the 34<sup>th</sup> Water Polo European Championships, which was held in 2020 in Budapest.

**Material and methods:** The opinions and spending habits of domestic and foreign spectators of the European Water Polo Championships were investigated with survey method and the questionnaire was administered by interviewers. The number of items in the sample group primarily involved in the analysis is  $n=395$  people. Based on the available data, we analyzed the travel and consumption habits of passive domestic and foreign sports tourists coming to the event using descriptive statistical methods and examined the impact of their expenditures on the national economy. We were using the symmetric input-output table.

**Results:** The domestic spectators of the European Championship watched an average of 2.4 (SD=2.5) competition days,

while they spent an average of HUF 10,730 (SD=13,330) per day related to the competition. The sample included citizens of 10 countries, but the number of teams participating in the tournament exceeds 10 countries, so it can be assumed that there were spectators from more than 10 countries. 23.1% of respondents came from the Netherlands, 19.2% from Spain, and 11.5-11.5% from Germany and Italy. Foreign spectators watched an average of 3.0 (SD=2.3) competition days of the European Championship games. Foreign spectators spent an average of HUF 51,460 (SD=57,316) per day without travelling related to the competition, while together with travelling this amount was HUF 65,736 (SD=59,096) per day. By the sporting event generated output value was HUF 2,734,233,928, in which the added value represented HUF 1,712,573,116. At the level of the national economy, the event generated an estimated GDP of HUF 1,915,403,049.

**Conclusions:** The results clearly confirm that it is worth supporting the organization of major international sporting events in Hungary. The majority of the surveyed Hungarian spectators (78.1%), and more than two thirds of the foreign spectators (69.2%) rated the quality of the European Championship as excellent, which contributes to the professional suc-

cess of the Hungarian sports event organization. In addition, we can talk about a rewarding event from the point of view of the national economy, as both the related sectors and the state have created positive economic effects.

**Keywords:** water polo, economic impact, tourism impact, international sport events.

### **Absztrakt**

**Célkitűzés:** Magyarország Kormánya 2010 óta nemzetstratégiai ágazatként kezeli a sportot. Ennek egyik kiemelt eleme a nemzetközi sportesemények hazai környezetben történő lebonyolításának támogatása. A kutatás célja a 2020-ban Budapesten megrendezett 34. Vízilabda Európa-bajnokságra érkező hazai és külföldi sportturisták utazási és fogyasztási szokásainak gazdasági és turizmussal összefüggő hatásainak vizsgálata.

**Anyag és módszerek:** A vízilabda Európa-bajnokság hazai és külföldi nézőinek véleményét, költési szokásait kérdőíves felméréssel vizsgáltuk, a kérdőívet kérdőbiztosok által töltötték ki a résztvevők. Az elemzésbe bevont minta elemszáma  $n=395$  fő. A rendelkezésre álló adatok alapján leíró statisztikai módszerekkel elemeztük a rendezvényre érkező passzív belföldi és külföldi sportturisták utazási és fogyasztási szokásait, és megvizsgáltuk kiadásaik nemzetgazdasági hatását, amelyhez az Ágazati Kapcsolatok Mérlegét használtuk.

**Eredmények:** Az Európa-bajnokság hazai nézői átlagosan 2,4 (SD=2,5) versenynapot néztek meg, míg naponta átlagosan 10 730 forintot (SD=13 330) költöttek a versenyhez kapcsolódóan. A mintában 10 ország állampolgárai szerepeltek, de a bajnokságon részt-

vevő csapatok száma meghaladja a 10 országot, így azt feltételezhetjük, hogy több mint 10 országból érkeztek nézők is. A válaszadók 23,1%-a Hollandiából, 19,2%-a Spanyolországból, 11,5-11,5%-a pedig Németországból és Olaszországból érkezett. A külföldi nézők átlagosan 3,0 (SD=2,3) versenynapot néztek az Európa-bajnokságon. A külföldi nézők átlagosan napi 51 460 forintot (SD=57 316) költöttek el a versenyhez kapcsolódó utazás nélkül, míg utazással együtt ez az összeg 65 736 forint (SD=59 096) volt naponta. A sportesemény által generált output értéke 2.734.233.928 forint volt, melyben a hozzáadott érték 1 712 573 116 forint volt. A rendezvény nemzetgazdasági szinten 1 915 403 049 forint becsült GDP-t generált.

**Következtetések:** Az eredmények egyértelműen alátámasztják, hogy érdemes támogatni a nagy nemzetközi sportesemények magyarországi lebonyolítását. A megkérdezett magyar nézők többsége (78,1%) és a külföldi nézők több mint kétharmada (69,2%) kiválóan értékelte az Európa-bajnokság színvonalát, ami hozzájárul a hazai sportrendezvény-szervezés szakmai sikeréhez. Emellett nemzetgazdasági szempontból is pozitív hatásokról beszélhetünk, hiszen mind a kapcsolódó ágazatok, mind az állam számára pozitív gazdasági hatásokat váltott ki az esemény.

**Kulcsszavak:** vízilabda, gazdasági hatás, turisztikai hatás, nemzetközi sportesemények.

### **Introduction**

Nowadays, sports tourism is an essential part of the sports sector. Sport tourism has been a dynamically developing sector in the tourism sector in recent years



(Győri, 2020). The researchers predict a bright future for the sector. Sports tourism is highly related to and inseparable from the organization of domestic international sports events. The organization of international sports events is becoming more and more widespread in Hungary (Stocker and Szabó, 2017). The growing trend is supported, for example, by the strengthening of the role of recreational sport. The assumption that events can have positive economic impacts has increased interest in their hosting by many destinations worldwide (Kwiatkowski and Oklevik, 2017). Sport event tourism became a research topic at the beginning of the 1990s as underlined by different scholars (Bazzanella, 2019).

Since 2010, the Hungarian government has handled sport as a sector of national strategy. One of the key elements of this is the support of organizing international sports events in the domestic environment (Stocker and Szabó, 2017). According to the Sportcal data, Hungary was placed 18<sup>th</sup> in the World and Budapest was ranked third position in the list of countries and settlements organizing international sports events in 2019 (Sportcal, 2019).

In sports and international business, the research of international sport events is becoming a very valuable field. The unfolding of the events themselves tackles a lot of international elements. For example, media, spectators, organizers, technical staff, etc. In addition, the mega-events became a well-researched area in the first two decades of the 21<sup>st</sup> century (Stocker and Laczkó, 2020).

The number of research studies on the relationship between sport and the economy continues to increase. Research is

also increasing in the area of the economic impact assessment of international sporting events. Many studies confirmed (András and Kozma, 2014; Bene and Móré, 2017; Flyvbjerg et al., 2016; Hover et al., 2016a; Hover et al., 2016b), that the mega international sports events have positive economic and social effects. Such effects can stimulate contribution to tourism, job creation, the strength of the national identity, and promotion of volunteering.

Furthermore, it is also proven that the different sport activities have a lot of externalities. The researchers usually examine from a number of other perspectives in terms of sporting events. These complex effects are from the aspect of sport performance, sport politics, society and technology (Stocker and Szabó, 2017; Laczkó and Paár, 2018). Besides the economic impact of the mega sports events' studies, we can find studies which deal with economic impact of the smaller sporting events. Within this area, this forms a good basis for comparison with the mega events (Laczkó et al., 2020). On the societal level, events have serious promotional effect on sport and physical activities, as well as a quality entertainment role, the latter of which we had the opportunity to examine within the study, although the former can undoubtedly have very significant spill-over external effects (Ács et al., 2011; Stocker and Ács, 2012; Ács et al., 2016a). In these studies, the authors examine the economic effects of organizing a sporting event, they want to know how many spectators visit the organizer city enjoying a particular contest. In these studies, the amount of money spent by domestic and foreign spectators in view of the competition was also in-

vestigated. It is also important to know whether the audience spent nights to see the competition in Hungary or in the given town or not.

Several surveys have been focused on the characteristics and effects of different sporting events in Hungary over the past decade (KPMG, 2015; Bánhidi, 2015; Stocker and Szabó, 2017). Apart from the characteristics of the participants, economic and tourism impacts were most often examined. Hungarian researchers focused mainly on events of great interest, such as the FINA World Championship in Budapest (Bene and Mór , 2017).

In 2016, a Hungarian Government decree was issued that the Hungarian Government will support the organization of the 34th Water Polo European Championships, which was held in 2020 in Budapest. Subsequently, a four-party agreement was reached on the organization of the event in November 2016. The following partners participated in the agreement: The Government of Hungary, International Swimming Association, Hungarian Swimming Association and Hungarian Water Polo Association. After the conclusion of the agreement, the organization of the event started.

### **Objective**

The aim of this research is to study the economic and tourism-related effects of the travel and consumption habits of domestic and foreign sports tourists coming to the 34th Water Polo European Championships, which was held in 2020 in Budapest. Our objectives were also to establish the value of the generated tax and the generated GDP of competition. We also wanted to get information about the consumption patterns of both domestic and

foreign viewers (e.g. daily expenses, total expenses, spending on travelling, accommodation, meals, etc.).

The research questions of the study are the following:

- How much GDP did the 34th European Water Polo Championships contribute to the Hungarian economy?
- How many competition days did the domestic spectators of the European Championship watch?
- How much did the Hungarian spectators of the European Championship spend on average per day?
- How much did the foreign spectators spend on average per day related to the competition?

### **Material and methods**

The 34th European Water Polo Championships was a major international sport event, where European countries participated. There were 28 participating national teams in the 34th European Water Polo Championship, which was held between 12-26 January 2020 in Budapest, Hungary. The main facility of the event was Duna Ar na in Budapest. Moreover, for trainings, there were other 2 facilities available for the teams in Budapest. 16 men and 12 women teams from Europe participated, a total of 364 players. 112 staff accompanied the participating teams.

Opinions and spending habits of domestic and foreign spectators of the Championships were investigated with the survey method and the questionnaire was administered by interviewers. Sample selection was the following: domestic and foreign spectators participating in the event and

countries' delegations were selected randomly in the event.

The sample size of the analysis is  $n=395$  people. Based on the available data, we analyzed travel and consumption habits of passive domestic and foreign sports tourists coming to the event using descriptive statistical methods and examined the impact of their expenditures on national economy. We were using the symmetric input-output (IO) table. The input-output table is increasingly used in domestic studies to analyze economic effects of sporting events in recent years. (KPMG 2015; Laczkó and Stocker, 2018; Laczkó et al., 2020) As a first step in our modelling, we determined that the direct economic impact of the event is based on expenses of the event participants and the total amount spent by the organizers for the event. The next step was to identify the economic impact involved. We quantified the magnitude of the typical import content of sectors concerned, the multiplier effect of its final output, the generated value added, tax content and the amount of GDP generated. As a last step in modelling, we quantified economic impact of competitions with direct domestic resources, total domestic effects taking into account spillover effects, as well as generated GDP and total generated taxes.

### **Results**

In the 14 days of Championship, there were 52,567 tickets sold, the number of VIP tickets is not known, but the organizer estimated a total sum of about 60-70,000 spectators in the event.

The teams had accommodation in hotels of Budapest downtown.

According to gender distribution, 54.5% of the Hungarian sample was female

and 45.6% of the Hungarian sample was male. In terms of age, the Hungarian visitors' distribution was the following: 12.9% under 20 years of age, 20-29 years of age 25.3%, 30-39 years of age 20.6%, 40-49 years of age 28.3%, 51-60 years of age 7.4%, over 60 years of age 5.5%.

More than two-thirds (69.4%) of the Hungarian respondents were residents of Budapest. Non-Budapest residents travelling for up to one hour accounted for 5.8% of spectators, while those travelling for more than one hour, but up to 2 hours accounted for 13.8%. The proportion of those who travelled more than 2 hours to watch the European Championship was 11.0%. We should definitely emphasize that three quarters (75.2%) of the domestic spectators were from the capital city or came from a maximum of 1 hour distance from Budapest.

Due to the high proportion of residents, almost half (48.2%) of the spectators arrived by public transport, in addition, a high proportion (33%) of spectators arrived by car (or minibus). 15% of Hungarian spectators arrived by train / bus, while 3.8% used other means of transport (such as bicycles, car sharing, etc.).

More than half of respondents (58.4%) watched the competition with their families, 9.5% of them came alone, 27.5% with friends and acquaintances, while 4.6% came with sports buddies.

Domestic spectators of the European Championship watched an average of 2.4 (SD=2.5) competition days, while they spent an average of HUF 10,730 (SD=13,330) per day in relation with the event, therefore one domestic spectator spent estimated HUF 25,752 related to the event. The spectators' expenditure distribution can be seen in Table 1, the

average domestic spectator paid for the entrance ticket more than half (53.5% - HUF 5,741) of the average daily spending.

The sample included citizens of 10 foreign countries. According to country distribution, 23.1% of respondents came from the Netherlands, 19.2% from Spain, and 11.5% each from Germany and Italy. We would like to highlight that the number of countries of respondents is 10. However, we predate that the spectators are not only from these 10 countries, so it is one of the limitations of the study. More than two-thirds (69.2%) of foreign spectators arrived to Budapest by plane, followed by their own car (or minibus) (15.4%) or train (or long-distance bus) (11.5%).

Foreign spectators of the European Championships spent an average of 3.76 nights (SD=2.76) in Hungary. 40.9% of foreign spectators stayed in at least 3-star hotels (31.8% in 4- and 5-star hotels), while 11.5% each in rented apartments (Airbnb) or youth hostels, and 15.4% of them found their accommodation with acquaintances/friends.

Foreign spectators watched an average of 3.0 (SD=2.3) competition days of the European Championship. Foreign spectators spent an average of HUF 51,460 (SD=57,316) per day without travelling related to the competition, while this amount was HUF 65,736 (SD=59,096) per day together with travelling costs.

According to the expenditure of domestic and foreign spectators, the accredited participants of the event, the total expenses of the organizers related to the organization and sponsorships, the total estimated expenditure of the 34<sup>th</sup> European Water Polo Championship was HUF

2,734,233,928. We must point out that in the case of foreign spectators and participants, the impact assessment included expenditures that would not have been realized without the event, so these are new expenditure in the domestic economy.

The cost and the expenditure items shown under the direct economic impact include both domestic and imported end-use items, with the import ratio from the Hungarian IO table for the respective NACE codes the import content of the expenditure was HUF 78,429,348. Based on these, the estimated direct domestic expenditure related to the event was HUF 2,655,804,579.

In addition to the direct domestic expenditure (where businesses and service providers directly benefit from the event), there are also indirect effects, as suppliers and members of the supply chain in other sectors indirectly related to the event also benefit from the event. According to the multipliers (ranging from 1.33 to 1.97) of the given NACE codes for the spillovers effect from the of the IO table, the total domestic output related to the international competition was HUF 4,469,258,248.

According to the value-added ratios from the IO table for the European Championships (0.383), the total domestic output generated HUF 1,712,573,116 of value added to the Hungarian economy. In addition to the generated added value, the generated product taxes were HUF 202,829,933 (generated product taxes and subventions ratio was 0.045 from the IO table).

Therefore, the estimated GDP contribution generated by 34<sup>th</sup> European Water Polo Championship was HUF 1,915,403,049 to Hungary's GDP.

**Table 1.** Distribution of spectator's spending related to the event

	Domestic		Foreign	
	distribution (%)	distribution (HUF)	distribution (%)	distribution (HUF)
entrance ticket	53.50%	5,741	7.50%	4,93
travelling	13.90%	1,491	26.70%	17,552
accommodation	3.90%	418	22.40%	14,725
domestic travel	9.90%	1,062	5.30%	3,484
hot meal / restaurant	n/a	n/a	16.70%	10,978
other food consumption	11.70%	1,255	9.90%	6,508
services	1.60%	172	4.90%	3,221
buying	5.30%	569	6.50%	4,273
other	0.20%	21	0.10%	66
summary	100%	10,73	100%	65,735

Source: Authors' compilation

**Discussion and conclusions**

The results clearly confirm that it is worth supporting the organization of major international sporting events in Hungary. The majority of the surveyed Hungarian spectators (78.1%) and more than two thirds of the foreign spectators (69.2%) rated the quality of the European Championship as excellent, which contributes to the professional success of the Hungarian sports event organization. In addition, we can talk about a rewarding event from the point of view of the national economy, as

both the related sectors and the state have created positive economic effects.

The analyzed event was the last big European sport event before the COVID-19 lockdown. The consumption of participants and the spectators was in the higher segment of the tourism sector, and thanks to this, the daily spending of the above-mentioned groups related to the event was higher than the spending of the average tourists (average daily domestic tourism expenditure HUF 7,412 in Q1, 2020 (Hungarian Central Statistical Office, 2021). If we summarize the re-

sults, we can state that this event generated a total domestic daily output of HUF 113,926,414, a daily contribution to the GDP of HUF 79,808,460.

According to the further research questions, Hungarian spectators watched an average of 2,4 competition days, spent an average of HUF 10,730 per day in relation with the event, whereas foreign spectators spent HUF 65,736 per day on average.

Events like the European Championships can support motivation for physical activity (Ramchandani- Coleman, 2012, Weed et al., 2012). The regular moderate physical activity reduces risks of the most frequent civilization diseases, and is associated with well-being (Kruk, 2014). Increasing health care costs, reducing of the productivity and efficiency of organizations can all be attributed to physical inactivity (Szabó and Ács, 2020). Initiatives in Hungary aimed at encouraging active lifestyle from childhood onwards should be continued since - beyond the initial impact that has already been experienced to some extent in recent years - these initiatives will come to their full fruition in the coming decades (Ács et al., 2020). Such events can motivate different generations to increase their physical activity.

The results show us that such big sport related events can bring return on investment. Overall, the results of this research draw attention to the positive tourism and national economic consequences of the international sporting events, which are attractive enough for both organizing body and the municipality. This study highlights the attention on the fact that the state must focus on applying and organizing similar events in the future.

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ZSÓFIA RAGÁNY

**ECONOMIC AND SOCIAL IMPACT OF MAJOR INTERNATIONAL SPORT  
EVENTS IN HUNGARY: THE UIPM 2019 PENTATHLON WORLD  
CHAMPIONSHIPS**

**NEMZETKÖZI SPORTESEMÉNYEK GAZDASÁGI ÉS TÁRSADALMI  
HATÁSA MAGYARORSZÁGON: AZ UIPM 2019 ÖTTUSA  
VILÁGBAJNOKSÁG**

**Abstract**

**Objective:** There are numerous positive effects that make sporting events worth hosting. There is not only economic – financial and business – profit linked to international sporting events, but the tourism industry can greatly profit from these tournaments as well. Additionally, the political and diplomatic impact of these events are also unquestionable. This research mainly focuses on the economic and social impact of major international sport events hosted by Hungary.

**Materials and methods:** With the help of quantitative analysis – a questionnaire – the main research question – ‘Is it worth hosting major international sporting events?’ – is to be answered. My hypothesis is that international sporting events are worth hosting because of both positive economic and social impact. The questionnaire was conducted at the UIPM 2019 Pentathlon World Championships, where n=171 people from the audience participated in the research.

**Results:** The quantitative research resulted in rather positive findings for the economic, touristic, and social impact of the UIPM 2019 Pentathlon World Championships: the respondents liked the event, they were happy with the Hungarian hospitality and the tourist attractions of

Budapest and were spending significant amount of money that contributed to the Hungarian economy.

**Conclusions:** Foreign viewers spent around five times as much as Hungarian viewers, and they also spent more on tourism-related services and generally stayed in higher quality accommodation. The impact on tourism was also positive, as international respondents visited tourist attractions during their stay.

**Keywords:** international sport events; economic impact; social impact.

**Absztrakt**

**Célkitűzés:** Számos olyan pozitív hatás létezik, amelyek miatt érdemes sporteseményeket rendezni. A nemzetközi sporteseményekhez nem csak gazdasági – pénzügyi és üzleti – profit köthető, hanem a turizmus is nagyban profitálhat ezekből a versenyekből. Ezen túlmenően az események politikai és diplomáciai hatása is megkérdőjelezhetetlen. A kutatás elsősorban a Magyarországon szervezett nemzetközi sportesemények gazdasági és társadalmi hatásaira fókuszál.

**Anyag és módszerek:** Kérdőíves kutatás segítségével kerül megválaszolásra a fő kutatási kérdés – „Érdemes-e nagy nemzetközi sportesemények megrendezése?”. Hipotézisem az, hogy a nemzetközi spor-

teseményeket mind pozitív gazdasági, mind társadalmi hatásuk miatt érdemes rendezni. A kérdőív az UIPM 2019 öttusa világbajnokságon készült, ahol a közönség közül  $n=171$  fő vett részt a kutatásban.

**Eredmények:** A kvantitatív kutatás meglehetősen pozitív eredményeket hozott az UIPM 2019 öttusa világbajnokság gazdasági, turisztikai és társadalmi hatásaira vonatkozóan: a válaszadóknak tetszett a rendezvény, örültek a magyar vendégszeretetnek és Budapest turisztikai látványosságainak, és jelentős pénzüsszeget költöttek el, amivel hozzájárultak a magyar gazdasághoz.

**Következtetések:** A külföldi nézők ráfordítása mintegy ötszöröse volt a magyar nézőkének, emellett többet költöttek a turizmushoz kapcsolódó szolgáltatásokra, és általában magasabb színvonalú szálláshelyeken szálltak meg. A turizmusra gyakorolt hatás szintén pozitív, mivel a nemzetközi válaszadók turisztikai látványosságokat kerestek fel tartózkodásuk során.

**Kulcsszavak:** nemzetközi sportesemények; gazdasági hatás; társadalmi hatás.

### Introduction

The Hungarian government views sport as a ‘*national strategic sector*’ since 2010. According to Sárközy, highlighting a sector as a national strategic one is not necessary, but usually a part of the governments’ broader agenda. A sector of this kind “appears in the government’s ideology, communication and most importantly in its budget” (Sárközy, 2017). The new scheme of Hungarian sport has not changed in ten years. The three-pillar target system of that includes: all children

should play sports; quality sport facilities; and to host as many international sports competitions as possible. From 2006 to 2010, the number of domestically hosted international sporting events has increased sixfold. The same number, from 2006 to 2017 exhibited an almost twentyfold increase (Stocker and Szabó, 2017). There are numerous positive effects that make sporting events worth hosting. From a financial and business point of view, several stakeholders like the organizers, the local and state government, the connected suppliers, etc. would like to make profit from the event itself – by selling tickets, hotel rooms and providing services. These kinds of events require a rather large investment on infrastructure, which is usually calculated to have long-term value and profit. Furthermore, the new facilities and the event itself require manpower, thus offering new jobs at the country’s labour market. Vörös (2015) states somewhat the same in her writing, saying that “sport investment increases national wealth, creates jobs and generates significant revenue from sports tourism (Vörös, 2015:128).

From the point of view of tourism, an international event brings international participants (competitors, technical staff, delegates, referees, spectators, etc.). They gain awareness about the host city, its offers and cultural background. Herstein and Berger (2013) were also interested in the city branding purposes of sporting events, as people today refer to sport events as “a social reality” (Herstein and Berger, 2013). Sports themselves are bringing people together in unity and with pride. András and Kozma (2018) also highlight the direct social effect of sporting events, such as “community

identity and consciousness about sport". They also structured the impact on the local growth of the host city or region, as well as the need for the event to be in line with the local authorities' and people's expectations (András and Kozma, 2014). Last but not least, the political and diplomatic impact of international events is unquestionable. Leaders cheering for their national team with thousands of others in the audience, creating a peaceful yet very informal atmosphere is unique. An opportunity like this one can bring amazing development for the country, its nationals, and its athletes. As Paár and Laczkó (2018) mentioned, the connecting event of European and World Championships is usually the Congress of that specific sport where there is a chance for the host country's delegates to take part in the different boards of the international association and gain a better position for the nation in the future (Paár and Laczkó, 2018).

The economics of sports has been an interest of economists for a long period of time. There is a lot of money circulating between the hands of sponsors, professional athletes, teams, leagues, and organizations, as well as the governments. According to Fernández-Gavira et al., "sport represents a large and fast-growing sector of the economy and makes an important contribution to growth and jobs. [...] this sector represents around 2% of the GDP in most of the European countries, with a huge potential for growth given its close relationship with tourism [...] (Fernández-Gavira et al., 2016).

Not only are there numerous international papers on the topic of sport economics and social impact of sporting events, but a lot of Hungarian research as well. Re-

cently, the EYOF (European Youth Olympics Festival) 2017 in Győr and its impact on the host city and its inhabitants have been analysed by Máté (2018), Polcsik and Győri (2018). Besides Máté, Laczkó and their colleagues – Paár, Stocker and Ács – in different publications studied the economic impact of international sporting events hosted in Hungary (Laczkó and Paár, 2018; Laczkó and Stocker, 2018; Laczkó and Stocker, 2020; Laczkó et. al., 2020).

In this study, I will use these and other papers as well to get a deeper understanding of the topic.

### **Objective**

The purpose of this research was to gather relevant information about how major international sport events contribute to the economy, tourism, and the society.

The main research question of the paper is more general, as I would like to find a universal answer to whether it is worth hosting major international sporting events in Hungary?

More focused research questions must be analysed to be able to answer the main question:

RQ1: What kind of economic impact do major international sport events have in Hungary?

RQ2: What is the impact of major international sport events organized in Hungary on the host nation's tourism and society?

In the sector of sports, where the main focus is on sport events, getting to know the attendees' – e.g. athletes, delegates, spectators etc. – attitudes concerning the event is a crucial part to determine the economic and social effects of such events. The chosen event for this paper was the UIPM

2019 Pentathlon World Championships.

### **Materials and methods**

The research was conducted by the survey method, a questionnaire was used to ask a series of questions from the Hungarian and international audiences and delegates at the UIPM 2019 Pentathlon World Championships. The organizers offered 2200 tickets for the pentathlon fans, and about 1000 more for the laser-run fans (nemzetisport.hu, 2019). From N=3200 – attendees of the World Pentathlon and Laser-run Championship, the sample included n=171 participants and spectators with random sampling. Significance level is set at  $p < 0.05$ , and the statistical calculations – such as Chi-square test and descriptive statistical methods – were made with SPSS 25. Although, there is no information about the representativity of the sample, because of the very high sample size, the conclusions of the research can be considered.

The UIPM 2019 Pentathlon World Championships were hosted by Budapest between the 1st and 8th of September – “for the seventh time since its debut”. During the one-week event about “1000 participants from more than 60 nations” visited Budapest – including 200 of the world’s leading pentathletes (UIPM, 2019).

The questionnaires were filled out in person by the participants attending the UIPM 2019 Pentathlon World Championships. They were both in Hungarian for the Hungarian spectators and in English for the international delegations and audience. The core questions were asked in both versions, however, there were some differences that let me draw further conclusions among the respondents who were from different countries.

The questionnaire has been validated in

several World Championships organized in Hungary (e.g. 2018 UWW Wrestling World Championships, 2019 ITTF Table Tennis World Championships, 2019 ICF Canoe Sprint World Championships, etc.).

The sample taken from the participants of the UIPM 2019 Pentathlon World Championships, amounting to 171 during the event, is rather reliable since they all possess relevant data for the research. The sample was mostly Hungarian audience and international delegations, as well as a few people from the international audience.

### **Results**

Three different sample groups were asked with the usage of a questionnaire during the Pentathlon WC. These three groups included not only the Hungarian audience that were present at the event, but to support the international background of the analysis, people in the audience and delegates from abroad were also included. 171 people participated in the analysis, giving many different points of view and opportunities for conclusion. Participants came from twenty countries in total – including Hungary, the host country as well – and from four continents. Most of the participants of the research were from the Hungarian audience – 94 people, that is about 55% of the total sample –, then from the delegates – 35% – and a bit less than 10% of the respondents were from the international audience.

The Hungarian participants mainly came from the capital city – more than 69% of them were locals – and the agglomeration cities, as Budapest is located in the heart of Pest County. The combination of the two resulted in more than 85% of the to-

tal Hungarian audience. The third biggest group is the people who came from Fejér county. That is one of the most accessible counties of Hungary, where it takes only an hour or less to go to the centre of Budapest. Only three people came from the Eastern part of Hungary and travelled substantially more to watch the athletes. The case of international participants is more diversified. For the groups of delegates and audience, the highest percentage of people came from the United Kingdom – about one third in both cases. France also contributed by a rather large number of visitors in both cases. Even though almost one fourth of the international audience were from Portugal, less than 10% of the delegates were Portu-

guese.

The Hungarian respondents were asked how exciting/interesting the competition was, while the international groups were asked to rate the organization quality of the event. As these questions were simple ratings where 1 was the worst and 5 was the best rate to get, I made a cross-tabulation regarding the gender of the respondents. In all three cases, every single person answered both the question about their gender and about the event. This way there are no invalid results.

In all cases, the highest rating – 5 – got the most votes – that is the mode in all the cases, meaning that the majority of the respondents thought the event was of excellent quality, it was very much exciting

**Table 1.** Crosstabulation of the Hungarian audience's and the international delegates' gender and their opinion on the event (number of respondent and their ratio)

		Quality of event organization / How interesting the competition was											
		1		2		3		4		5		Total	
		#	%	#	%	#	%	#	%	#	%	#	%
Male	Int. delegates	1	2.56%	0	0.00%	3	7.69%	9	23.08%	26	66.67%	39	25.32%
	Hungarian audience	0	0.00%	0	0.00%	3	8.11%	8	21.62%	26	70.27%	37	24.03%
Female	Int. delegates	0	0.00%	0	0.00%	2	9.52%	6	28.57%	13	61.90%	21	13.64%
	Hungarian audience	0	0.00%	1	1.75%	4	7.02%	24	42.11%	28	49.12%	57	37.01%
Total		1	0.65%	1	0.65%	12	7.79%	47	30.52%	93	60.39%	154	100.00%

Source: Authors' compilation

and interesting. When there is a rating in the analysis, it is suitable to calculate the averages. In these cases, the international delegates rated the competition best with an average rating of 4.52, the Hungarian and international audience had 4.5 and 3.84 averages respectively.

Running a Chi-square analysis on the data of Table 1, in the case of the Hungarian audience the chi square statistic is 5.197 and the p-value is 0.158. In the case of the international delegates, the chi square statistic is 0.806 and the p-value is 0.848. As the p-value is a lot higher than 0.05 (the designated alpha level) in both cases, the result shows that the two sample groups' opinion on the event is not in connection with the gender of the respondents or where they came from, hence it is not biased.

In the case of the participants' desire to revisit Budapest and how that is connected to their visited tourist attractions, the answer possibilities for the two analysed groups were slightly different. For the delegates, there were four different answer possibilities for both questions, differentiating between why they did not visit any attractions and when they are considering coming back (Table 2). For the audience, these possibilities were more generally only "no" – they did not visit any attractions – and "yes" – they would like to come back.

Looking at Table 2, we can see that only one person was not interested in visiting any attractions, while more than third of the respondents said that they visited sites around Budapest more than once during their stay. The largest number of respond-

**Table 2.** Crosstabulation of the international delegates' touristic visits and desire to revisit Budapest

		Considering coming back to Budapest									
		No		Maybe		Yes, in 5 years		Yes, this year		Total	
		#	%	#	%	#	%	#	%	#	%
Visited any tourist attraction	No, not interested	0	0.00%	1	1.67%	0	0.00%	0	0.00%	1	1.67%
	No, did not have time	1	1.67%	12	20.00%	3	5.00%	1	1.67%	17	28.33%
	Yes, once	0	0.00%	7	11.67%	6	10.00%	5	8.33%	18	30.00%
	Yes, multiple times	0	0.00%	13	21.67%	7	11.67%	4	6.67%	24	40.00%
<b>Total</b>		<b>1</b>	<b>1.67%</b>	<b>33</b>	<b>55.00%</b>	<b>16</b>	<b>26.67%</b>	<b>10</b>	<b>16.67%</b>	<b>60</b>	<b>100.00%</b>

Source: Authors' compilation

ents had not decided if they would like to come back or not – they answered “maybe”. Interestingly, that one person saying that they are not interested in Budapest, answered that he/she may be coming back in the future. No one who visited at least one attraction said that there is no way that they are travelling to Budapest again, which is definitely positive.

Even though I would have expected a correlation between the international participants’ – in this case delegates’ – desire to revisit the city and if they visited any tourist attractions during their stay (Table 2), the Chi-Square test shows that the p-value is 0.501 hence the respondents’ desire to revisit Budapest is not based on whether they have visited any tourist attractions or not.

Looking at Table 3, we can see that more foreign visitors thought that the quality of

the event organization was rather good (4 or 5), hence they are more likely to revisit Budapest – or at least none of them said that they would never come back.

Because of the nature of the questionnaire – paper-based in person –, people did not have to answer every question to move on to the next one. This led to many missing answers, as people in general do not like to talk about their income as spending, which is usually a sensitive topic to bring up. In all cases, where there was no answer, I did not add that to the sum of the spending.

In the cases of the international audience and delegates, the length of their stay was asked, which was 5.6 and 5.2 nights respectively. While the Hungarian audience was asked how many competition days they visited, where the answer was 2.2 in average. Even though the average spend-

**Table 3.** Crosstabulation of the international delegates’ and audience’s opinion on the event and desire to revisit Budapest

Considering coming back to Budapest		Quality of event organization							
		2		3		4		5	
		Delegates	Audience	Delegates	Audience	Delegates	Audience	Delegates	Audience
Maybe	International delegates					10		22	
	International audience		2		2		6		5
Yes	International delegates			5		5		16	
	International audience								1

Source: Authors’ compilation

ing of the international respondents were about five times of that of the Hungarian respondents, their stay would indicate about 2.5 times of that. It means that if the length of stay is taken into consideration, it is still seen that the international respondents spend multiple times more.

The total spending of the Hungarian spectators in the sample from all types of spending was 1,211,355 HUF – which is 12,887 HUF per person average spending. We can see in Table 4 that the biggest part of this amount – 44.5% – was from the ticket sales for the event. This is not surprising if we consider the fact that majority of the people came to visit the event and not for other purposes. The spending on food, transport and accommodation together also adds up to 43.5%, leaving only about 12% for other consumption and shopping. Other consumption includes spending on alcohol and tobacco products, while shopping primarily means spending on clothes. Less than 2% of total spending of the Hungarian audience came from shopping, which is not surprising as they can easily access the same shops any time of the year not just while the event lasts.

In Table 4, the spending of the Hungarian audience is also shown in EUR as well as in HUF. The average exchange rate in September 2019 was 1 EUR=332 HUF, with this exchange rate the spending is calculated by spending types.

The total spending of the international delegates in the sample was 24,051 euros – which is 401 euros per person average spending. With the exchange rate of 5 September 2019, that is about 132,000 HUF per person during their whole stay – which was 2 to 10 nights in Budapest. In this questionnaire. I did not ask how

much they spent on the tickets for the event, thus this amount includes spending on food, services – transport and accommodation mainly –, shopping and other.

The same trend can be seen in the case of the Hungarian respondents' spending. About 43.5% of the total spending was on food, while 36.5% was on services. It is interesting that while Hungarian people in their own country spend barely 2% on shopping during a sporting event, foreign people spend more than 10% on the same thing while attending a sporting event abroad – almost as much as they spend on other things.

The total spending of the international spectators in the sample was 15,885 euros – 934 euros per person, which is a high amount compared to the spending of the other two groups. 934 euros were about 308,000 HUF at that time, which in this case means per person spending but includes the spending on accommodation as well. Similarly, to the questionnaire for the international delegates, there was no question about their spending on tickets for the event. However, in this case, there were questions about their spending on accommodation, transport, food and dining and services separately. Even though the sample was less than third of that of the international delegates', they spent only about 35% less in total.

In this case as well, accommodation and transport together count for the greatest part of the total spending – more than 60%. Spending on food and dining together are about 30% of the total. The same trend can be seen when it comes to shopping, as in the case of the international delegates – it is higher than the same kind of spending of the Hungarian participants. Probably because of the same



**Table 4.** Respondents' type and their type of spending – spending in HUF and EUR

Type of spending	Respondents' type			
	Hungarian audience (spending in HUF)	Hungarian audience (spending in EUR)	International delegates (spending in EUR)	International audience (spending in EUR)
Tickets	539,080	1,624		
Transport	137,575	414		5,210
Accommodation	132,000	398		4,430
Food and dining	257,300	775	10,470	4,780
Services			8,786	815
Shopping	21,000	63	2,675	650
Other	124,400	375	2,120	
<b>Total</b>	<b>1,211,355</b>	<b>3,649</b>	<b>24,051</b>	<b>15,885</b>

Source: Authors' compilation

reason, that shopping abroad is different than shopping in your own country.

### Discussion and conclusions

Analysing a world championship, the perceived quality of the event in the eyes of the respondents is important for social, touristic and sport diplomatic reasons as well. Looking at the three groups, we can say that most of the respondents were very satisfied with the organization of the event. The Hungarian respondents and the international delegates were very happy with it. Their averages were 4.5 and 4.52 out of 5 respectively. However, the international audience was a bit lower at 3.84 in average. We could state that these opinions are not biased on their gender or home country.

According to Laczkó and Stocker (2020) "most of the domestic spectators are

coming with family, friends or mates as the experience can be even better if shared with others" (Laczkó and Stocker, 2020:15). At least two people coming together means more spending and more experiences to share – higher chances to visit tourist attractions, restaurants, bars etc.

A few questions were only asked from the international respondents as they were connected to tourism. Most of the delegates who had time to discover the city more than once during their stay said that they may visit again in the future or that they will definitely visit again in 5 years. The Chi-square test in this case suggested that the respondents' desire to revisit is not based on their visits at any tourist attraction. None of them said that they would not visit Budapest ever again. Almost every respondent from the audi-

ence said that they may visit again, even the one person who said that they did not see any tourist attractions during his/her stay. This let us state that Budapest has its own attractiveness even when there are no major international sport events held in the city. However, an event like this one accelerates this attractiveness.

What was important for determining the economic impact of the event is to analyse the spending behaviour of the Hungarian and international groups.

Starting with the Hungarian audience, we could see that they spend most of their money on the tickets for the event (about 45%) – that is similar as in Laczkó and Stocker's (2020) studies, where they spent the highest amount 25-32% on the entrance fee. They spend about 22% of the total on food and the same amount on accommodation and transport together. These are not in correlation with the other authors' findings, as in the case of the WTTC and CWC 2019, spectators spent more than 30% on travel and accommodation together and less than 20% on food. They spent the least on shopping during the event, however, during the WTTC 2019, domestic spectators spent more on shopping than on any other spending type except tickets (Laczkó and Stocker, 2020:11). It is also important to mention that the total spending of the international respondent groups in average is more than five times bigger than it is of the Hungarian audience. This may conclude that it is worth hosting international sporting events because of the fact that international people arriving to Hungary because of such an event spend multiple times more than the domestic spectators. The international audience however, spent the most on accommodation and

transport – together more than 60%. They spent about 1/4 of their total on dining and smaller amounts – about 15% all together – on food, services, and shopping. Although shopping is only about 4%, that is more than double of that of the Hungarian audience.

The international delegates spent on only four different kinds of things out of which more than 80% was on food and services – including transportation – and the other 20% was on shopping and other. Here we could see that they spent more than 10% of their total on shopping, which is almost double the amount of that of the two different audiences together.

Laczkó and Bánhidi (2019) stated that the spending of foreigners during their inbound travel that is connected to sport is higher in the cases of multi-day trips. Additionally, they are spending more money on sport related services during these kinds of trips. The authors declared as well that tourist – either domestic or foreign – spend more when they are staying for at least one night (Laczkó and Bánhidi, 2019). According to the multiple works in relevant topics, it is visible that inbound multi-day tourism that is connected to sport or sporting events generates higher national income due to higher spending of tourists.

The spending trends that are analysed above are in connection with those of Laczkó and Stocker (2020) who determined that the tourists arriving to Hungary for sport event in 2017 spent the most to services connected to the basic touristic needs such as accommodation and food, as well as transportation. They also mentioned that tourists spend a major amount on shopping as well. They also stated that most of the incoming tourists

came from Europe as it was the case in UIPM Pentathlon WC as well (Laczkó and Stocker, 2020).

All in all, we can say that the quantitative research resulted in rather positive findings for the economic, touristic, and social impact of the UIPM 2019 Pentathlon World Championships. The respondents liked the event, were happy with the Hungarian hospitality and the tourist attractions of Budapest and were happy to spend a lot of money that contributed to the Hungarian economy.

When it came to answering the initial question ‘Is it worth hosting international sporting events?’, the answer is yes, as they bring many positive impacts with them. The results showed that in correlation with other authors’ work, the UIPM 2019 Pentathlon WC was worth hosting as well. According to András and Kozma (2014), the major international sporting events are not only bringing positive – economic - impact with them, but they also help the host city/nation to boost its competitiveness (András and Kozma, 2014).

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**MÁRK HOFFBAUER****ECONOMIC AND SOCIAL IMPACT OF MAJOR WRESTLING INTERNATIONAL SPORT EVENTS ORGANIZED IN HUNGARY BEFORE AND UNDER COVID-19 PANDEMIC****A MAGYARORSZÁGON SZERVEZETT NEMZETKÖZI BIRKÓZÓ SPORTESEMÉNYEK GAZDASÁGI ÉS TÁRSADALMI HATÁSA A COVID-19 VILÁGJÁRVÁNY ELŐTT ÉS ALATT****Abstract**

**Objective:** The COVID-19 pandemic has changed our lives in many areas. Sport is also one of the changing fields. The main changes since the beginning of the pandemic situation have been around the organization of sports competitions as well. Sports events were cancelled, and some were carried over to another year. In many cases, sporting events took place behind closed gates or barely in front of a few spectators. In both the international and Hungarian literature, many authors deal with the study of sporting events, primarily their economic and social effects. The aim of this article is to show how the impact changed during the pandemic, with the help of 2018 World Wrestling Championships held in Budapest and the 2021 European Wrestling Olympic Qualification Tournament held in Budapest.

**Propositions:** I propose that the characteristics of different impact types of international sport events changed because of the COVID-19 pandemic and the economic impact of international sport events decreased significantly during the COVID-19 pandemic.

**Materials and methods:** Survey method to investigate the 2018 World Wrestling Championships, financial data from the Hungarian Wrestling Federation regard-

ing the organization of both events, and semi-structured interview with the Vice President of the Hungarian Federation.

**Results:** Spectators' and other participants' expenditure was around 50% of the direct expenditure in the 2018 World Wrestling Championships, which marginalized in the case of 2021 European Wrestling Olympic Qualification Tournament. Bubble system closed-door event had increased organizational costs. Online media viewership increased.

**Conclusions:** The impact dimensions of international sport events remained very stable, although in some dimensions the emphasis or the characteristics changed due to the pandemic.

**Keywords:** COVID-19, international sport events, wrestling, "closed door" event.

**Absztrakt**

**Célkitűzés:** A COVID-19 járvány számos területen megváltoztatta életünket, a sportban is. A legfőbb változások a járványhelyzet kezdete óta a sportversenyek rendezése kapcsán mentek végbe. Egyes sporteseményeket elhalasztottak, másokat töröltek. A sporteseményeket sok esetben zárt kapuk mögött, vagy alig néhány néző előtt bonyolították le. Mind a nemzetközi,

mind a magyar szakirodalomban számos szerző foglalkozik a sportesemények gazdasági és társadalmi hatásainak vizsgálatával. Jelen cikk célja, hogy bemutassa, hogyan változott ez a gazdasági és társadalmi hatás a járvány során, a 2018-as budapesti birkózó Világbajnokság és a szintén Budapesten megrendezett 2021-es európai olimpiai birkózó kvalifikációs verseny összehasonlításának példáján.

A kutatás fő feltételezése, hogy a nemzetközi sportesemények különböző hatástípusainak hangsúlyjellemzői megváltoztak, továbbá, hogy a nemzetközi sportesemények gazdasági hatása jelentősen csökkent a COVID-19 világjárvány miatt.

**Anyag és módszerek:** A kutatás során feldolgozásra került a 2018-as világbajnokság helyszínen lekérdezett strukturált kérdőívek eredménye, a Magyar Birkózó Szövetség két rendezvény lebonyolítására vonatkozó adatai, valamint a Szövetség alelnökével készült félig strukturált személyes interjú.

**Eredmények:** A helyszíni szurkolók és a többi résztvevő ráfordítása a 2018-as birkózó világbajnokság közvetlen kiadásainak mintegy 50%-át tette ki, ami a 2021-es birkózó kvalifikációs torna esetében marginalizálódott. A buborékrendszerű zártajtós rendezés megnövelte a szervezési költségeket, amely mellett az online média nézettsége megnőtt.

**Következtetések:** A nemzetközi sportesemények hatásdimenziói nagyon stabilak maradtak, bár egyes dimenziókban a hangsúlyok vagy a jellemzők megváltoztak a világjárvány okán.

**Kulcsszavak:** COVID-19, sportesemények, birkózás, zártkapus esemény

## Introduction

International sport events are part of the entertainment industry (András, 2013). The popularity and the media availability of the international sport events helps to generate broadcasts. Thanks for international broadcasting, major international sport events are part of the global market, and the biggest sport events are available in the whole world.

The Hungarian Government declared sport as a strategic sector and created a new national level strategy in which organizing international sport events became one of its pillars. Therefore, in Hungary, more and more international sport events have been organized in the 2010s and number of international sport events increased over 100 in 2017 (Stocker and Szabó, 2017). Among other events, Hungary was the host of the fencing (2013, 2019), wrestling (2018), table tennis (2019) World Championships, and even some matches of the 2020 UEFA European Football Championship (2021).

According to Gammon (2011), sport events can be categorized as special, mega, hallmark sport events, and sport heritage events (parades, festivals) needs to be considered as well. Berger and Herstein (2013) differentiate 4 types of sport events: mega, international, medium and minor.

This paper is focused on major international sport events as of the missing category in Herstein's classification identified by Stocker and Laczkó (2020). According to regional focus, this paper is focused on events organized in Hungary, and sportswise the focus is on the Olympic sport: wrestling. Hungary organized two major wrestling events in the recent past, one before the COVID-19 pandemic

and one during the pandemic. This paper examines the economic and social impact of wrestling international sport events organized in Hungary before and during the pandemic, namely the 2018 World Wrestling Championships Budapest, and the the 2021 European Wrestling Olympic Qualification Tournament Budapest.

Albers (2004) identifies three key areas of impact for major international sporting events: social, economic, and environmental impacts. Different impact areas have been identified since, and the most comprehensive is by Stocker and Szabó (2017), which focuses on sports professional effects (S), sports policy effects (P), social effects (S), economic effects (E), analysis of technological impacts (T) and environmental impacts (E). In this research, the main focus is on the economic impact, and there is also some focus on the social impact as well.

Previous research on the effects of sporting events has approached the study of economic effects from several perspectives. Preuss (2005), András and Kozma (2014), Vörös (2017) also focused on the economic impact of sport events. The Herstein, Berger (2013) pair focuses on urban development effects, same from Máté (2018), who examines the impact of the EYOF in Győr. Published research on domestic sporting events approaches the impact assessment of sporting events in terms of revenues generated in tourism (Laczkó and Stocker (2018)). Whereas Laczkó and Stocker (2020a and 2020b) focus on the domestic sporting events impact on the national economy. Stocker and Laczkó (2020) deals with the expenditures of CEE and non-CEE spectators.

Stocker and Laczkó (2018) also explore

useful points of influence in their research examining world events in 2018, as they analyze them through a complex study of sports professional, sports policy, social and technological effects. Paár and Laczkó (2018) examined the sport political and sport professions impact of the international sport events which were organized in Hungary in 2018. Laczkó and Paár (2018) also explore the social impacts of these international events in Hungary. Stocker et al. (2018) examined the spectators' and competitors' expenditures and satisfaction, and the competition's social and economic impact of 2018 World Wrestling Championships.

The COVID-19 pandemic changed the international sport event landscape, however. According to Evans et al. (2020), the position of sport sociologist became more important in the pandemic situation, and they assumed that changes would happen in the sport industry.

According to Szabó et al. (2020), physical activity even during the first phase of the COVID-19 pandemic changed significantly in the Hungarian sport sector (decreased  $166\pm 1128$  minutes per week on average).

Carmondy et al. (2020) suggested three documents for the organizers of international sport events: WHO key planning recommendations for mass gatherings; WHO considerations for sports federations/sports event organisers when planning mass gatherings in the context of COVID-19; WHO mass gathering sporting risk assessment. Miles and Shipway (2020) focused on the changes and the COVID-19 pandemic as a catalysator for the new agendas for the international events in crises times. Weed (2020) examined the role of the interface of sport



and tourism in the response to the COVID-19 pandemic. Weed said that the answers for the pandemic have three categories in sport and tourism. First category was the cancellation and postponement of major sports events. The second was a Recreating and reliving sport during lockdown, the third was „A new normal for Elite sport – live, but not as we know it!”. Drewes et al. (2021) explore the sports economic impact of COVID-19 on professional soccer. They reported that the professional soccer clubs have been forced to realize that they are not only dependent on each other, but that they also depend on spectators in various ways. Westmattelmann et al. (2020) examined virtualisation of sport events during the COVID-19 pandemic. The research notes that the development of visualisation is one of the only positive point of the COVID-19 pandemic. Fallatah (2021) notes that 58% of the host cities thought that the virus outbreak will only have a minor impact in 2021. Breidenbach and Mitze (2022) examined the COVID-19 infection effects based on the German professional football “experiment”. According to their results, the districts hosting first league matches with spectator attendance above the median (> 6,300 persons) and, particularly, matches without strict face mask requirements experienced a significant relative rise in incidence rates 14 days after the match. They also found that intra-district mobility increased on match days in treated districts, highlighting the significance of professional football matches as mobility-based infection transmission channel.

### **Objective**

The objective of this paper is to identi-

fy the social and economic impact of the 2018 World Wrestling Championships organized in Budapest, and 2021 European Wrestling Olympic Qualification Tournament also organized in Budapest. The COVID-19 pandemic situation significantly changed the organization of the sport events. In case of our study, the viewers could only follow their favorites online (youtube), we cannot calculate their on-site spending and evaluations.

### **Hypothesis**

H1: The characteristics of different impact types of international sport events changed because of the COVID-19 pandemic

H2: Economic impact of international sport events decreased significantly during the COVID-19 pandemic

### **Materials and methods**

In this research, mixed methods were applied because of the different circumstances of international sport events organized before and during the pandemic. Information from spectators about the 2018 World Wrestling Championships were obtained with the survey method, but in the 2021 European Wrestling Olympic Qualification Tournament, spectators were banned because of the pandemic. Financial and professional information from the events were obtained from the organizers, and semi-structured qualitative interview was conducted with the Executive Vice President of Hungarian Wrestling Federation, who was also chief executive of the organizing committee of the events, too.

Sullivan and Sargeant (2011) write the following about the quantitative and qualitative research. „Quantitative research uses

a *positivist* perspective in which evidence is objectively and systematically obtained to prove a causal model or hypothesis; *what works* is the focus. Alternatively, qualitative approaches focus on *how* and *why* something works, to build understanding. In the positivist model, study objects (e.g., learners) are independent of the researchers, and knowledge or facts are determined through direct observations. Also, the context in which the observations occur is controlled or assumed to be stable. In contrast, in a qualitative paradigm researchers might interact with the study objects (learners) to collect observations, which are highly context specific” (Sullivan and Sargeant (2011:449). With regard to the 2018 World Wrestling Championships, the survey included simple demographic questions, financial questions and five-level scale questions

as well. The questions focused on the organization work, hospitality, willingness to return to Hungary, length of stay in Hungary, type and price of accommodation, means of arrival to Hungary, expenses on travel, and other services (restaurants, shops, etc.). The 2018 World Wrestling Championships had 55,807 spectators (42,671 local). The number of the answers at the survey is 551 (131 foreign, 420 local).

The competitors (38 respondents) spent on average 7 nights in Budapest, the respondents spent more than 2 million forints on meals, and another 4 million forints on purchases and services. The responding competitors rated the organization as 4.8, which is excellent result.

The two events can be compared according to the indicators seen in Table 1.

At the 2021 European Wrestling Olym-

**Table 1.** Direct data about the 2018 World Wrestling Championships and the 2021 European Wrestling Olympic Qualification Tournament.

Indicator	Unit of measure	Event	
		2018 World Wrestling Championships	2021 European Wrestling Olympic Qualification Tournament
Number of competitors	capita	810	285
Hungarians	capita	30	13
Coach, masseur, professional staff	capita	550	220
Hungarians	capita	20	15
Delegates	capita	40	10
Judge, technical staff	capita	120	60
On-site viewer	/day	55,807	0
Hungarians	/day	42,671	0

Source: Hungarian Wrestling Federation

pic Qualification Tournament, the quantitative form wasn't usable, because the event was closed door. Nevertheless, detailed semi-structured interview could be conducted with Mr. Péter Bacsa (the vice-president of Hungarian Wrestling Federation).

### Results

In the 2018 World Wrestling Championships in Budapest, there were 2,000 competitors, and more than 45,000 spectators. The spectators rated the organization of the event at 4.69 (the competitor's rated even higher, at 4.8). and 52% of foreign viewers said they would return to the country within 5 years.

The basic characteristics of the foreign spectators in the sample are as follows. The average age of the viewers was 41 years, more than 70% arrived by plane, while only 17% arrived to the capital by car. The average stay in Budapest of foreign competitors in the sample were 5.4 nights, 25% of them stayed in a 3-star hotel, and 30% of them in a 4-star hotel, whereas a quarter of them staying in an apartment during the competition. Respondents spent more than 28 million HUF for accommodation, 9.7 million HUF for travel, 8.4 million HUF for restaurant services and another 13 million HUF for other services and other purchases during their stay in Budapest. The average daily cost of foreign spectators was 44,415 HUF, which is much higher than the average tourist or spectator spending in sports events, which can be explained by the high number of high-spending Russian spectators. 71% of the respondents came with a partner. The organization of the competition was rated on a five-point scale at 4.69, the

Hungarian hospitality was rated 4.5, and 52% of the respondents said they would return to the country or Budapest within 5 years.

The basic characteristics of the local spectators are the followings: The average age of the interviewed spectators was 37 years, they travelled for the event 80 minutes on average, 25% of the respondents arrived by public transport, 17% by train, 50% by minibus or car. Hungarian fans watched more than 3 competition days on average. During the competition, almost 40% of them did not need accommodation because they lived in or around Budapest, and another 42% did not use accommodation because they traveled home. Domestic fans who booked accommodation spent 3.2 nights in Budapest, mostly in an apartment. Respondents spent little less than 1.4 million forints on accommodation, 2 million forints on travel, 3.3 million forints on restaurant services and another 3.5 million forints on services and other purchases. The average daily expenditure of domestic spectators was HUF 8,683, which is significantly lower than the foreign spectators', but significantly higher than the average daily spending of domestic sport tourists registered by the Hungarian Central Statistical Office.

Hungarian and foreign guests spent a total of 900 million HUF during the competition, which was supplemented by spending 240 million HUF in the pre- and post-competition period. Based on the organization of the event, the cost of spectators and participants, the world event generated direct expenditure of 3,596 million HUF, which resulted in more than 6 billion HUF total output, 2,537 billion HUF GDP contribution, and HUF 970

million in taxes was paid to the Hungarian budget.

In the 2021 European Wrestling Olympic Qualification Tournament in Budapest, the number of participants were 285, the number of coaches and delegates were 220 and there were no on-site viewers because of the pandemic related restrictions. According to organizational costs per participant (competitors + coaches, delegates, technical staff etc), the 2021 European Wrestling Olympic Qualification Tournament's cost was 240,000 HUF/person (whereas the 2018 World Wrestling Championships the cost was 300,000 HUF/person). Because of the lack of spectators, some organizational costs decreased, but due to emerging health related costs, there was cost increase as well.

The expenditures of the extra health expenses due to the bubble system at the 2021 European Wrestling Olympic Qualification Tournament was 60,000,000 HUF, which cost contained PCR tests (every day for the 285 participants, the 220 coaches and the 60 organization members), fee of the human resource for the health service, the development of a mandatory COVID protocol. Due to postponing the event (as the original date was 2020 March), the Federation had to cover 150 million HUF costs to hotels, event place, technical providers, merchandise providers, etc. The Hungarian Government provided a subsidy to cover the expenses.

The sport professional value of the events did not change because of the pandemic, which was very important, as it is a main priority for the international and therefore for the Hungarian Federation as well. The only change was maybe the

uncomfortable situation of taking regular PCR tests, but the participants got used to it quite soon. Due to the pandemic and the bubble system, the event did not have any on-site spectators, which means they could not spend, and their expenditure could not cascade through the Hungarian economy.

The two events' normal social impacts are also different, the 2018 World Wrestling Championships is a bigger event, than the 2021 European Wrestling Olympic Qualification Tournament. Due to the COVID-19, the 2021 European Wrestling Olympic Qualification Tournament had only short media possibilities, which could not indicate a big social impact. If we look at the result of the Olympic Games in wrestling, the social impact of the Hungarian medals were much bigger. The sports policy effects are very important in both events, but the importance are different. The sport policy difference between the two events comes from the scope. The 2018 World Wrestling Championships' scope is all member of the United World Wrestling Federation. The 2021 European Wrestling Olympic Qualification Tournament was only a zonal event, therefore only the European members participated in it. The pandemic situation changed the agenda of the 2021 European Wrestling Olympic Qualification Tournament, and the Hungarian Federation had to create a COVID protocol, but that was later adapted by the international federation. All in all, sport policy related impacts were different, but the Hungarian Wrestling Federation increased its reputation with organizing the event in the bubble system, creating the COVID protocol, and being there and taking active initiative, when the international federa-

tion needed it.

Regarding online media presence, there were significant improvements which had to be made, since in the case of a closed-door event, this was the only way to see the competitors. On United World Wrestling's Youtube channel, the event's summary video was watched by more than 18,000, while when we summarize the finals, we got more than 40,000 viewers. It is interesting that the quarterfinal of the men's 67-pound race was watched by 53,000 viewers.

Based on all of these H1, it can be supported that the characteristics of different impact types of international sport events changed because of the COVID-19 pandemic

The economic impact changed due to the COVID-19 pandemic. The most important change in the inputs was the extra aid from the Government for the "bubble system organization". The most important changes in the expenditures were the decrease in the hotel costs due to less participants, and the decrease in organizational costs due to lack of spectators. The indirect expenditures have changed significantly, as the competitors and the guests did not have the possibility to eat out in restaurants, go to museums, or use public transport. The 2018 World Wrestling Championships generated direct expenditure of 3,596 million HUF (from which 1,868 million HUF was the participant expenditure), which resulted in more than 6 billion HUF in total output and HUF 970 million in VAT revenue based on the multiplicative effect, at the 2021 European Wrestling Olympic Qualification Tournament the participant expenditure pillar of the total output was marginal.

There were interesting economic and social impacts. In the pandemic situation, hotels, catering services, bus rent companies did not have too many orders to complete, however, sport event even in bubble created demand for them, which helped these service providers to survive. Changes in the pricing, because of market related changes caused by the pandemic:

- hotel accommodation prices decreased by 36%, as the hotel was extremely underutilized because of the pandemic, and that drove down the prices.
- Price of meals was increased with 7%, which is basically the combined inflation rate of 2019 and 2020 according to HCSO (HCSO, 2021).
- online media prices did not change, as their prices were fixed by UWW.

Proposition H2 is also supported, as with the lack of participant expenditure pillar, the total output was decreased by around 50%.

### **Discussion and Conclusions**

Albers (2004) identifies three key areas of impact for major international sporting events: social, economic, and environmental impacts. Different impact areas have been identified since, and the most comprehensive is by Stocker and Szabó (2017), which focuses on sports professional effects (S), sports policy effects (P), social effects (S), economic effects (E), analysis of technological impacts (T), and environmental impacts (E). Due to the COVID-19 pandemic, significant changes have been recognized in the sport sector, but the upon mentioned dimensions seem to be resilient. Although

the emphasis under them or their characteristics can change because of the pandemic.

According to the results, sports professional effects did not change significantly, the importance of the 2021 European Wrestling Olympic Qualification Tournament did not depend on the spectators or the closed-door event. The sport policy related effects changed, as the Hungarian Wrestling Federation had to make adjustments to the situation. The COVID protocol created by the Hungarian Federation was promoted and spread by the international federation, and the Hungarian Federation stepped up in a challenging situation, for which the international federation will be grateful. Carmondy et al. (2020) and Shipway (2020) also suggested changes in policy related effects, which is in line with our findings as well, as they suggested the importance of the protection and new agendas. The 2021 European Wrestling Olympic Qualification Tournament organization history is parallel with Weed's (2020) suggestion of the sport and tourism answer for the pandemic. The first answer was to postpone, the second was the organization with closed doors, which decisions also protected the competitors and the spectators as well. Breidenbach and Mitze (2022) wrote that the organization with spectators has a big infectious impact in the region (at the football matches), thanks for the government and the federation decision, the 2021 European Wrestling Olympic Qualification Tournament did not have the same effect.

Westmattmann et al. (2020) examined virtualisation of sport events during the COVID-19 pandemic, and according to their findings, digitalization in sport can

be the only positive impact of the COVID-19 pandemic. In the closed-door situation, visualization could only be done by media (online and TV) solutions. Online media presence increased, but TV time decreased for the 2021 European Wrestling Olympic Qualification Tournament in comparison with the 2018 World Wrestling Championships. More focus in the UWW online media is beneficial, but mostly wrestling insiders are looking for that media channel, which means popularization of the sport does not really work (which would work in TV however).

Economic impact measurement could be very similar in method but very different in their amounts, due to the marginalized participant expenditures. According to the technological impacts, in line with Westmattmann et al. (2020), emergence of new digital technologies could have been expected, but no new technologies were created, as all solutions were already developed. Environmental impacts were also very similar in their typology, but the environmental footprint of the spectators decreased the environmental burden significantly.

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LUKÁCS GERGELY, EMŐDY BARNABÁS

CONSUMPTION OF DOMESTIC SPECTATORS OF INTERNATIONAL  
SPORT EVENTS ORGANIZED IN HUNGARY

A MAGYARORSZÁGON RENDEZETT NEMZETKÖZI SPORTESEMÉNYEK  
HAZAI NÉZŐINEK FOGYASZTÁSA

**Abstract**

**Objective:** From both professional and economical point of view, the sport events are extremely important for the host country. The role of Hungarian spectators is as significant as their consumption, which has economic, social and environmental impact on the settlements. In the world ranking of settlements organizing international sport events, Budapest reached the 3<sup>rd</sup> place in 2019, and Hungary was ranked 18<sup>th</sup> among the countries. The aim of our research is to examine the characteristics and consumption habits of Hungarian spectators based on 7 international sport events held in Hungary.

**Materials and methods:** The number of spectators in the sample was  $n=3,155$ . The secondary research covered 175 (out of 193) districts of Hungary, which is all districts and Budapest as a whole. In the case of the secondary survey, district level and settlement level data were obtained from the Hungarian Central Statistical Office (HCSO).

**Results:** Based on the results, it can be said that spectators came to the examined sport events from all counties of the country, and the vast majority were men. Based on the totality of the seven competitions, it can be said that the Hungarian spectators paid a total of HUF 21,832 (SD=HUF 32,604) on average during the competitions, which means HUF 11,110

(SD=HUF 12,645) per a competition day. Based on the results of the multivariate regression study, it can be said that spending is significantly influenced by age, distance between the residence and the competition, number of race days viewed and use of accommodation. The attendance of the competition is significantly influenced by the following items: the size of settlement, the distance between the spectator's residence and the competition, and the labor market conditions among the settlement. Multivariate logistic regression model involved 13 items, which explain 82.9% of the population's competition attendance frequency.

**Conclusions:** Based on our results, we can conclude that the consumption of Hungarian spectators generated a significant income for the organizers. It also meant a significant economic impulse for organizing settlements. Most of the results of the large sample study drew our attention to statistically substantiated differences and characteristics.

**Keywords:** passive sport tourism, domestic spectators, consumption habits, economic impacts of sport events

**Absztrakt**

**Célkitűzés:** A nemzetközi sportrendezvények sportszakmailag és gazdasági szempontból is rendkívül fontosak a rendező ország számára. A magyar nézők

szerepe az eseményeken éppoly jelentős, mint a fogyasztásuk, amely nem csak az adott településen, hanem országosan is gazdasági társadalmi és környezeti hatásokat vált ki. A nemzetközi sportrendezvényeket szervező települések 2019. évi világranglistáján Budapest a 3. helyet foglalta el, míg Magyarország a 18. helyen végzett az országok között. Kutatásunk célja a hazai nézők jellemzőinek és fogyasztási szokásainak vizsgálata, hét Magyarországon megrendezett nemzetközi sporteseményen.

**Anyag és módszerek:** Az elsődleges kutatás során felvett kérdőív elemszáma 3155 fő volt. A másodlagos kutatás Magyarország 175 járására terjedt ki. A másodlagos vizsgálat esetében a Központi Statisztikai Hivataltól (KSH) származó településstatisztikai adatokat gyűjtöttük össze.

**Eredmények:** Az eredmények alapján elmondható, hogy az ország összes megyéjéből érkeztek nézők a vizsgált sporteseményekre, túlnyomó többségben férfiak. A hét verseny összesített eredménye alapján, a hazai nézők a versenyeken átlagosan 21 832 forintot ( $SD=32\ 604$  Ft) költöttek, amely összeg versenynaponként vizsgálva 11 110 forintot ( $SD=12\ 645$  Ft) jelent. A többváltozós regressziós vizsgálat eredménye alapján elmondható, hogy a költést szignifikánsan befolyásolja az életkor, a versenytől való távolság, a megtekintett versenynapok száma és a szállás igénybevétele. A verseny látogatását pedig a település mérete, a lakóhely távolsága a verseny helyszínétől és a munkaerőpiaci viszonyok befolyásolják szignifikánsan a települési tényezők közül. A többváltozós logisztikus regressziós modellezésbe a bevont 13 tényező, 82,9%-ban befolyásolja a lakos-

ság versenylátogatási gyakoriságát.

**Következtetések:** Az eredményeink alapján arra következtethetünk, hogy a hazai nézők fogyasztása számottevő bevételt generált a rendezők számára, illetve jelentős mértékű gazdasági impulzust jelentett a rendező település gazdasága számára is. A nagymintás elemzéséből kapott eredmények többsége statisztikailag alátámasztott különbségekre és jellemzőkre hívta fel a figyelmünket.

**Kulcsszavak:** passzív sportturizmus, hazai nézők, fogyasztási szokások, sportrendezvények gazdasági hatásai

### Introduction

Today one of the most dynamically developing sectors of tourism is sport tourism in Hungary. Professionals of sport tourism also attribute a great future and growth potential to those who work in these fields. It can be said that sport events are one of the dynamically developing sectors within sport tourism. (Dreyer, 2002; Bánhidi, 2015; Borbély and Müller, 2015; UNWTO, 2020; Ács et al., 2013; Laczkó and Stocker, 2020).

The organization of international sport events in Hungary has become one of the main priority of the National Sport Strategy. Thanks to the effort and collaborating work of the Hungarian Government and the national sport associations, the number of international sport events has shown a rapid increase in recent years. (Stocker and Szabó, 2017; Laczkó and Stocker, 2020).

As a result of the decision made in 2020, we can say that Budapest reached the 3rd place in the world (2019), while Szeged was ranked 216th in the ranking of settlements organizing international sport events. In this respect Hungary was

ranked 18th among the countries. (Sportcal 2019).

Based on the statistics, it is clear that the effort has proved to be successful in Hungary. These sport events (FINA, EYOF, et) proved to be significant both from professional and economic point of view. Within the organization of international sport events, the role of spectators is important, particularly the group of domestic spectators. In addition to the large number of domestic and foreign spectators, it must be said that they are also tourists of the organizing settlements and country. The consumption of tourists results in an economic impact in the organizing settlement and the country. The spectators who visit the competitions also have an impact from a social and environmental point of view (Laczkó and Stocker, 2018; Laczkó and Paár, 2018; Polcsik és Győri, 2018; Polcsik and Perényi, 2020). The presence of domestic spectators is particularly important at international sport events, as they account for 70-99% of passive sports tourists (Schwark, 2005; Sportcal, 2017; Sportcal, 2018; Sportcal, 2019a; Sportcal, 2019b).

In recent decades, there has been a dynamic increase in demand for active and passive trends in sport tourism around the world. Outstanding growth has begun in sport-related tourism sectors (Dreyer, 2002; Weed, 2006; Bánhidi, 2015; Borbély and Müller, 2015; Laffin, 2018). The research of Stocker and Szabó revealed that among sport events, the examined seven events in this study play a key role due to the number of stakeholders and the magnitude of the generated effects (Stocker and Szabó, 2017).

Regarding international sport events, the organizers focused on entertaining fac-

tors. The aim is to be more attractive for spectators which can improve the tourism and the economy as well. (Laffin, 2018; Laczkó and Stocker, 2020a; Laczkó and Stocker, 2020b). Entertainment-oriented additional events and services can be for example the opening/closing ceremonies, concerts, etc. It can be said that by now it has become almost an expectation from the organizers of the sport events to provide extra impulses connected to entertainment (Müller, 2019; Müller et al., 2017; Gödény et al., 2018).

Passive sport consumption has become one of the most popular leisure activities in Western Europe and the USA. Despite the growing it can be said that many people in Hungary still struggle with the problem of number of the audience (Bácsné et al., 2018a; Balogh et al., 2019). In several studies we may be confronted with the fact that the viewers' service is often still incomplete, so broadened additional services do not always satisfy the spectators' expectations. The existence of services greatly influences the purchasing decision which can be a determining element of competitiveness (Könyves and Müller, 2007; Bartha et al., 2018, Bácsné et al., 2018b; Bácsné et al., 2018c; Bácsné et al., 2018d; Balogh et al., 2019).

The effects of the COVID-19 pandemic cannot be ignored when examining the economic effects generated by the consumption of domestic spectators of international sport events. In 2020, due to the epidemic, we also observe a significant decline in the sport sector as well as in the areas of tourism and economy. The length of the epidemic situation will largely determine the development of the market (Campbell et al., 2020; Cooper et

al., 2020). In 2020, Hungary was also significantly affected by the virus situation, as the vast majority of international sport events could not be held. (Szabó, 2020).

In this article we want to present the characteristics and consumption habits of Hungarian spectators in relation to the 7 international sport events held in Hungary (Table 1). In the course of our research, we examined the expenditures of domestic spectators in different directions such as their travel, accommodation, meals and other benefits related to the events.

In addition to the examined economic impacts and characteristics, it can be said that the events also have additional

of professional sport, sport policy, social, macroeconomics, sport technology, and environmental impacts that are not examined in this study.

### Materials and methods

The primary goal of our research was to examine the relationship between the consumption habits of Hungarian spectators, and the factors influencing them relating to the seven international sport events. The events took place between 2018 and 2020.

In terms of its type, it is a cross-sectional, quantitative research based on primary and secondary data analysis. The target

**Table 1.** Data of the examined seven international sport events

Sport Events	Settlement	Year	Sport
Liebherr 2019 ITTF Table Tennis World Championship	Budapest	2019	Table tennis
2019 ICF Canoe Sprint World Championship	Szeged	2019	Kayak-Canoe
Gazprom Hungarian Open Budapest 2018 ATP 250	Budapest	2018	Tennis
2018 World Wrestling Championship	Budapest	2018	Wrestling
LEN European Championship	Budapest	2020	Water polo
ITTF World Tour Hungarian Open	Budapest	2018	Table tennis
European Shooting Championship	Győr	2018	Sport shooting

Source: Authors' compilation

group of the primary research is the domestic spectators who visited the competitions. The target group of the secondary data analysis were the 175 Hungarian districts (all districts in Hungary without decomposing Budapest).

During the primary research, we conducted a simple random sample where we tried to reach as many participants as possible. For each competition, we aimed to reach at least 10% of the spectators. The total number of sample (including all the seven events) was  $n=3,155$ . The used questionnaire was self-administered, also it was used for other studies of international sport events by the International Sport Events Research Group of PTE ETK, Physical Activity Research Group. The groups of questions focused on demographic characteristics, place of residence, travel and spending habits, and attitudes related to the competitions.

In the course of the secondary research, we carried out a comprehensive study covering all 175 districts in Hungary. In the case of the study, we collected publicly available settlement statistical data (districts) on the website of the Hungarian Central Statistical Office (HCSO). The aim of this study was to examine the factors influencing the attendance of above mentioned sport events, for which we used data from the HCSO's regional database to analyze the demographic, economic, geographical and health conditions of the sending settlements and to examine the correlations between them.

Primary and secondary research were examined with descriptive statistical methods (means, distributions, intensity ratios, etc.). Chi-square test, one-sample t-test and ANOVA test were used to examine the differences. Multivariate logistic and

linear regression analysis were performed to verify the correlations. The database was analyzed by Microsoft SPSS 22.0 statistical program and Excel program.

Using the multivariate linear regression model, we examined what kind of factors influence the spending habits of Hungarian viewers. The dependent variable of the regression model was the average of total expenditure per competition day. The independent variables were the questions related to gender, age, travel distance, visiting partners of the races, used accommodation, number of race days and nights spent, quantification of the quality and entertaining value of the races.

We examined different types of settlement factors which could influence the visiting habits of the competitions. We examined the 13 independent variables (economic, demographic, infrastructural and other statistical factors belonging to the settlements) with the help of multivariate logistic regression model.

## Results

In relation to the seven international sport events, the total number of surveyed spectators were 3,155. Examining the gender distribution ratio in the sample, it can be said that the vast majority were men (63.1% men, 36.9% women).

Examining the distribution by age group, it can be said that typically the largest proportion of young and middle-aged adults attended the sport competitions. The average age of the domestic spectators of the seven competitions was 37.25 years ( $SD=15.58$ ).

Based on the results, it can be said that spectators came to the seven international sport events from all counties of Hungary. Overall, it can be observed that the

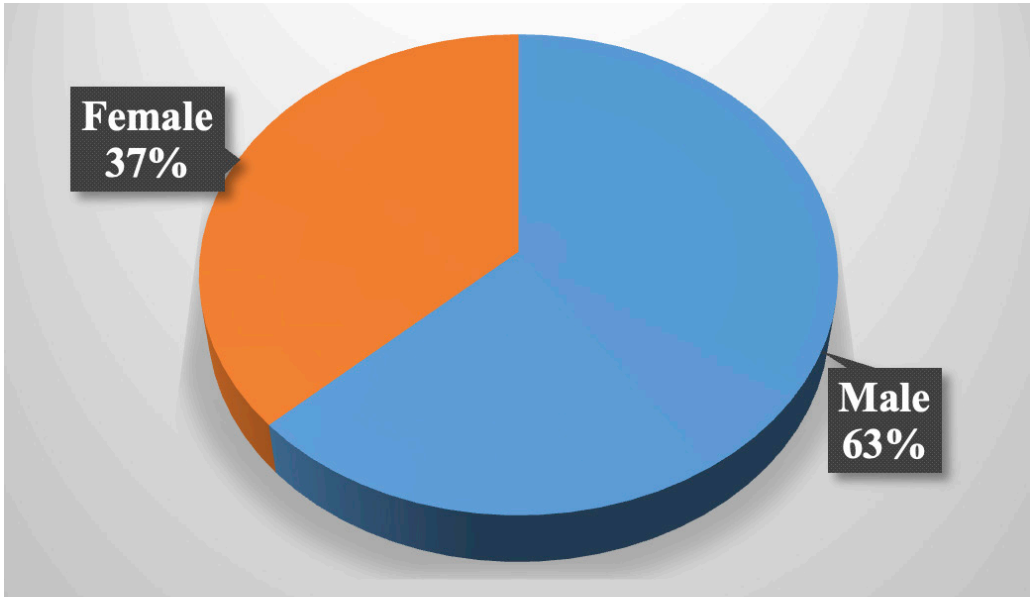
**Table 2.** Purpose and variables of the multivariate linear and logistic regression model

<b>Aim:</b> What factors influence the average level of competition-related spending?	<b>Aim:</b> Which settlement factors influence attendance at competitions?
<b>Method:</b> Multivariate linear regression model	<b>Method:</b> Multivariate linear regression model
<b>Dependent variables:</b> Total average spending per race day (HUF/race day)	<b>Dependent variables:</b> Attendees in the sport events (view at least 4 tournaments out of 7)
<b>Independent variables:</b> <ul style="list-style-type: none"> <li>• gender</li> <li>• age</li> <li>• travelling time</li> <li>• number of visited competition day</li> <li>• visiting partners of the competition</li> <li>• used accommodation</li> <li>• number of guest nights</li> <li>• quality of the competition</li> <li>• entertaining factor of the competition</li> </ul>	<b>Independent variables:</b> <ul style="list-style-type: none"> <li>• Municipal revenue per inhabitant</li> <li>• Municipal expenditure per inhabitant</li> <li>• Infant mortality per 1,000 inhabitants</li> <li>• Mortality rate per 1,000 inhabitants</li> <li>• Average distance from the competition (km)</li> <li>• Migration balance per 1,000 inhabitants</li> <li>• Number of sport halls, sports-grounds (pcs) per 1,000 inhabitants</li> <li>• Built dwellings (pcs) per 1,000 inhabitants</li> <li>• Resident population at the end of the year (data passed from the final census data)</li> <li>• Natural reproduction</li> <li>• Number of playgrounds, gymnasiums rest places (pcs) per 1,000 inhabitants</li> <li>• Number of internet subscriptions (pcs) per 1,000 inhabitants</li> <li>• Number of public employees (person) per 1,000 inhabitants</li> </ul>

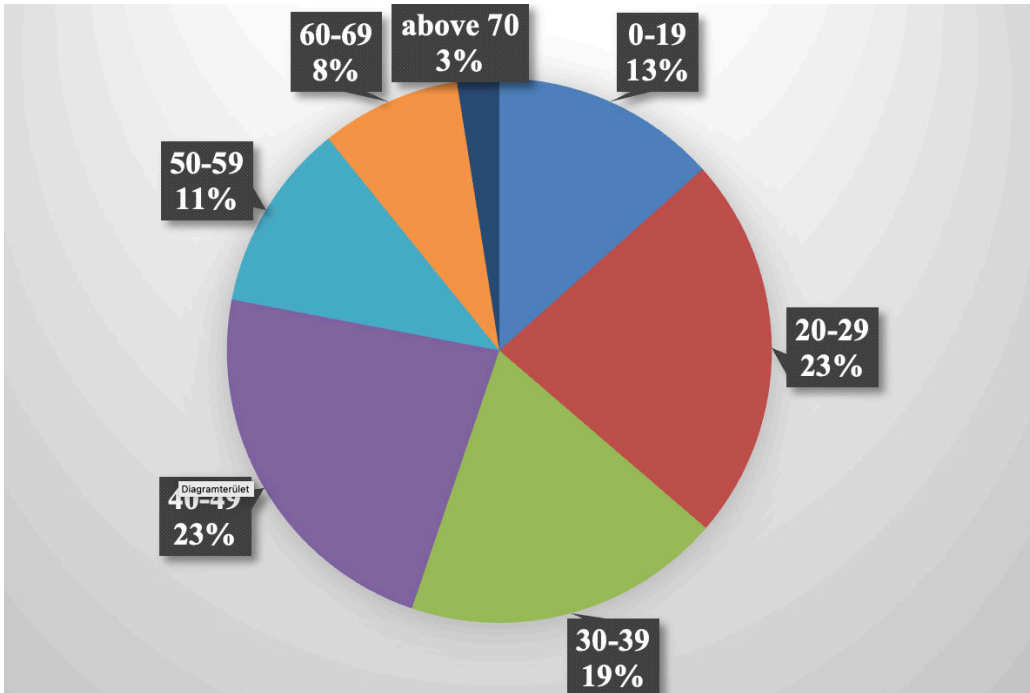
Source: Authors' compilation

most spectators came from Pest County and Budapest (55.6%). Apart from Pest County, a significant number of spectators came from Csongrád-Csanád (8.5%), Győr-Moson-Sopron (3.6%), Bács-Kiskun (3.4%) and Békés (3.0%) counties.

Within this, for each of the examined sport events in the capital, spectators came from Pest County (ATP250 Budapest 78.4%, Water Polo European Championship 66.1%, World Wrestling Championship 57.2%, World Table Tennis Champi-



**Figure 1.** Gender distribution ratio of the seven competitions  
(Source: Authors' compilation)



**Figure 2.** Proportion of age distribution among respondents  
(Source: Authors' compilation)

onship 46.8%, World Tour 35.6%). While the two competitions which were held in regional centre cities, the vast majority of Hungarian spectators came from Csongrád-Csanád and Fejér counties (Canoe Sprint World Championship 33.9%, European Shooting Championship 56.0 %). Hungarian spectators spent an average of 76.72 minutes (SD=74.69) travelling to reach the competition. Examining the results, it can be said that more than a third of the spectators (34.1%) travelled no more than half an hour to reach the competition. 59.8% of domestic fans travelled 0-60 minutes and 40.2% travelled more than an hour. 17.7% of spectators came from more than two hours distance to watch the tournaments.

In connection with this, we also asked what way the viewers chose to travel to the events. Most of them used long-distance and local public transport (56.5% by train, long-distance bus and other means of public transport), and a total of 38.9% came by car and minibus to the seven events.

From the results we can see that 89.7% of the domestic spectators of the seven international sport events attended in company and only 10.3% participated in the competition days alone. Of all the examined Hungarian spectators they came mainly with their families and relatives (45.7%). In addition, the number of domestic spectators (19.9%) who watched the competitions with their sports mates was also particularly characteristic of less popular sports such as table tennis or sport shooting.

According to accommodations used by the spectators, the results well reflect the fact that the local residents of the competitions held in the given settlement

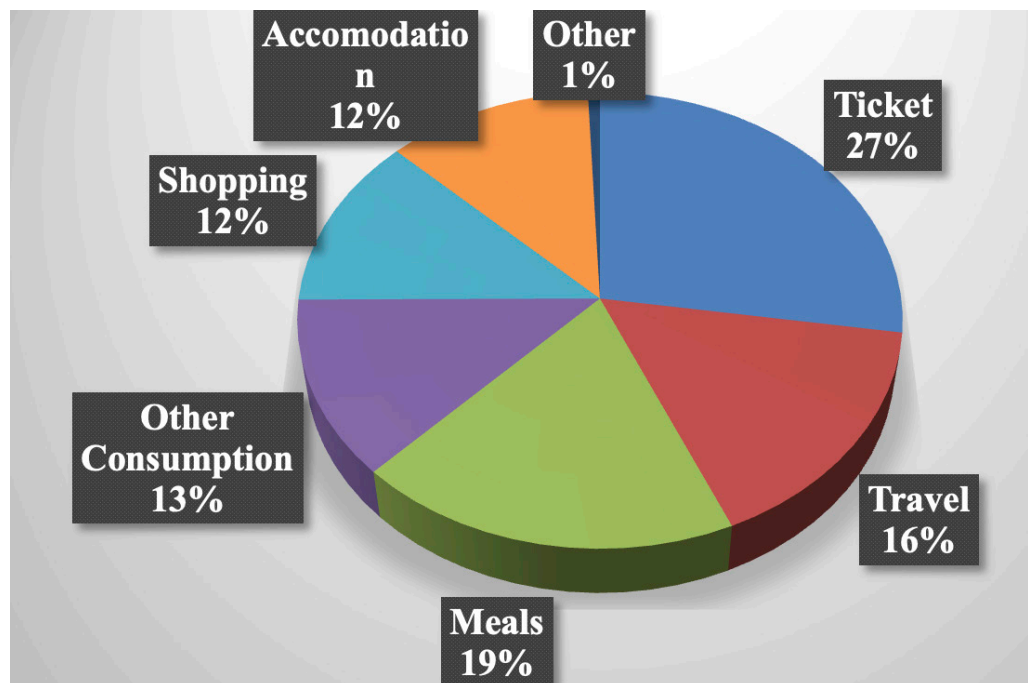
were present in a significant proportion (38.5%). Almost half of the spectators (46.5%) commuted between the competition and their place of residence, so the vast majority did not use any professional accommodation. The proportion of Hungarian spectators who used accommodation in connection with attending the competitions was 15.1%. We consider it an important result of our research that, based on the examined seven competitions, Hungarian spectators spent an average of 0.43 (SD=1.62) guest nights in connection with the sport events. The highest average number of guest nights were at the two sport events which were held in regional centre cities (in Győr: 2.12 nights SD=3.48, and in Szeged: 1.13 nights SD=1.73).

Among the domestic spectators of the seven international competitions, we also examined the spending habits of the spectators. Based on the totality of seven events, it can be said that the Hungarian spectators paid an average of HUF 21 832 (SD=HUF 32 604), which means HUF 11,110 spending (SD=12 645) per competition day.

In our research, we also examined on what domestic spectators spent during their stay related to the seven competitions. These are the followings: tickets (27.4%), travel (16.1%), meals (18.9%), other consumption (12.6%), shopping (12.3%), accommodation (12.1%) and other spending (0.7%).

During the data collection, we also looked at how exciting the competitions were for the Hungarian spectators on a scale of one to five, and how they rate the quality of the organization. The results showed that the entertaining factor was scored on average 4.56, and the quality of the organi-





**Figure 3.** Spending rates in percentage of the seven competitions  
(Source: Authors' compilation)

zation was rated on average 4.42. Examining the competitions separately, it can be said that the World Wrestling Championship and the LEN European Championship were judged very favorably by the spectators. According to the ANOVA test, there were no significant differences with the two competitions above, compared to the other events in analysis.

It also should be highlighted from the results that 66.2% of the Hungarian spectators rated the entertaining factor of the seven competitions at five, while 60.5% rated the quality of organization as the best possible.

The relation between the spending habits of Hungarian spectators related to competitions, and the influencing variables were examined with the Enter version of the multivariate linear regression model.

Based on the results, it can be said that the regression model is significant ( $p=0.000$ ) and that 12 variables explain 18.5% ( $R^2$ ) of the spending habits (Table 3). Based on the results of Table 2, it can be seen that out of all the independent variables only 4 variables remained significant (age, travel time, number of race days viewed, used accommodation related to the competitions). There is a positive relationship for age, distance, and accommodation, while a negative relationship is seen for the race days viewed.

Of the four significant factors, the use of accommodation has the greatest influence (standardized coefficient  $\beta=0.306$  and  $p=0.000$ ) on the conformation of the magnitude of spending. In order of the strength of their influencing effect this is followed by the race days viewed

**Table 3.** Results of the multivariate regression model

	Non-standardized coefficients		Standardized coefficients	t	Sig.
	B	Deviation	Beta		
<b>(Constant)</b>	2003.893	7197.635		0.278	0.781
<b>Gender</b>	-879.713	1958.657	-0.026	-0.449	0.654
<b>Age</b>	129.885	50.131	0.148	2.591	<b>0.010</b>
<b>Travel time</b>	28.678	10.650	0.182	2.693	<b>0.008</b>
<b>Number of race days viewed</b>	-1406.483	474.931	-0.231	-2.961	<b>0.003</b>
<b>Attend alone</b>	-304.360	3028.076	-0.008	-0.101	0.920
<b>Attend with families, relatives</b>	2115.571	2707.555	0.066	0.781	0.435
<b>Attend with sport mates</b>	-1872.205	2625.358	-0.059	-0.713	0.476
<b>Attend with friends</b>	-2385.830	3268.295	-0.062	-0.730	0.466
<b>Used accommodation</b>	5849.119	1603.996	0.306	3.647	<b>0.000</b>
<b>Guest nights</b>	-815.243	595.183	-0.133	-1.370	0.172
<b>Entertaining factor of the competitions</b>	337.190	1259.442	0.017	0.268	0.789
<b>Quality of organization</b>	-389.444	903.244	-0.028	-0.431	0.667

Source: Authors' compilation

( $\beta=0.231$  and  $p=0.003$ ), the travel distance ( $\beta=0.182$  and  $p=0.008$ ), and finally the age ( $\beta=0.148$  and  $p=0.010$ ).

The aim of our research was also to examine where the spectators come from and whether the characteristics of the settlement influence the attendance of international sport competitions organized in Hungary.

Due to the fact the seven events were considered in our study, we considered districts that included spectators from at least four competitions out of the seven during the population that regularly attended the events. Based on the result, it can be said that this accounted for a quarter of the districts, i.e., 44 out of 175. Based on the results of multivariate logistic regression model, it can be observed that the settlement factors included in the study significantly influence the attendance of competitions among the population. Based on the value of  $R^2$ , it can be said that the 13 variables involved, 82.9% explain the frequency of visiting the competition by the population (Table 4). In addition to controlling the influencing effect of the factors, it can be said that the size of the settlement, the distance from the competition and the number of public employees remained variable with a significant influencing effect. Regarding the size of the settlement, it can be clearly stated that in our largest cities they are also most interested in international sport events. The effect of the other variables included in the model did not remain significant.

### **Discussion and conclusions**

In our research, we highlighted seven of the international sport events organized in Hungary and examined the characteristics of their domestic spectators. We

were curious about how the spending habits of Hungarian participants modulate, and what influences their willingness to spend. The topicality of the research is also reflected in the fact that in recent years the organization of such major international sport events has become the focus in terms of politics, professional environment of sport and also public discourse.

Most of the results obtained from the analysis of the data collection on a large number of samples drew attention to statistically substantiated differences and characteristics. We got to know the spending and tourism habits of the Hungarian spectators participating in five international sport events in Budapest, one in Győr and one in Szeged. The total number of items in the sample is 3 155, of which 63.1% are men and 36.9% are women. Typically, the presence of men predominates. In terms of age distribution, young and middle-aged adults (aged 20-49) are the two strata that are active, solvent groups in society who were interested in sport events.

The interviewed domestic participants came from all over the country. According to the results, the residents of the host city represented a significant proportion of spectators at the events which is also reflected in each competition. In our study, the proportions were shown similar to other world competitions in Central and Western Europe. For instance, based on the data share of local residents was 34% at the World Floorball Championship (Prague, 2018), and 40% at the Nordic Ski World Championship (Lahti, 2017).

Based on generality and our experience, a small proportion of people came alone

Table 4. Results of logistic regression model

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
<b>Municipal revenue per inhabitant</b>	-0.014	0.009	2.201	1	0.138	0.986
<b>Municipal expenditure per inhabitant</b>	-0.001	0.014	0.010	1	0.921	0.999
<b>Mortality rate per 1000 inhabitants</b>	-0.996	0.691	2.076	1	0.150	0.369
<b>Infant mortality per 1000 inhabitants</b>	-23.232	17.660	1.731	1	0.188	0.000
<b>Average distance from the competition (km)</b>	-0.031	0.011	8.253	1	<b>0.004</b>	0.970
<b>Migration balance per 1000 inhabitants</b>	0.011	0.078	0.020	1	0.887	1.011
<b>Number of sport halls, sports-grounds (pcs) per 1000 inhabitants</b>	-3.220	5.488	0.344	1	0.557	0.040
<b>Built dwellings (pcs) per 1000 inhabitants</b>	-0.142	0.351	0.164	1	0.686	0.867
<b>Resident population at the end of the year (data passed from the final census data)</b>	0.000	0.000	18.749	1	<b>0.000</b>	1.000
<b>Natural reproduction</b>	-0.689	0.508	1.839	1	0.175	0.502
<b>Number of playgrounds, gymnasiums, rest places (pcs) per 1000 inhabitants</b>	0.442	0.385	1.321	1	0.250	1.556
<b>Number of internet subscriptions (pcs) per 1000 inhabitants</b>	0.015	0.018	0.657	1	0.418	1.015
<b>Number of public employees (person) per 1000 inhabitants</b>	-0.116	0.057	4.157	1	<b>0.041</b>	1.123
<b>Constants</b>	7.362	9.891	0.554	1	0.457	1575.073

Source: Authors' compilation

to sport events. As the research shows, only 10.3% of the participants attended on their own, and the majority (89.7%) were those who came with their families, friends, and fellow sport buddies.

Based on the results of our research, it can be stated that the average spending per competition day was HUF 11,110, while the total spending was HUF 21,832 per spectator. The average of spending of domestic spectators at international sport competitions is higher than the average of spending of Hungarian tourist. We used the 2019 data surveyed by the Hungarian Statistical Office as the basis for 2-4 days of domestic travel for tourism purposes. The publicly available statistics of the HCSO showed that the expenditure per person per day was HUF 7,038 (Hungarian Central Statistical Office, 2019).

With the help of the multivariate regression model, we were able to determine which factors influence the spending habits with a significant effect, after the influencing effect of the variables introduced into the model was filtered out. After controlling of the influencing effects of the independent variables, four variables remained independently significant (age, distance from the competition, number of race days viewed, and used accommodation related to the competition).

It can be said that the proportion of viewers of the competitions is higher in our larger settlements, in settlements closer to the competition and where the number of public employees is lower. The proportion of public employees is usually a good indicator of the general economy, quality of life of the settlement. Lower public employment rates assume more favorable settlements.

These results fit well with Laczkó and

Stocker (2020a, 2020b) who examined the macroeconomic effects generated by the consumption of the Hungarian spectators of the ITTF World Table Tennis Championship and the Canoe World Championship. The population of the settlement also significantly influenced the attendance of the competitions in their analysis. International sport events provide a measurable and significant economic impetus for the economy of the organizing settlement.

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MOTIVATIONS FOR COMMUNITY SERVICE AND SPORTS  
VOLUNTEERING AT SPORTING EVENTS

A KÖZÖSSÉGI SZOLGÁLAT ÉS A SPORTESEMÉNYEKEN VALÓ  
ÖNKÉNTESSÉG MOTIVÁCIÓI

**Abstract**

**Objective:** Volunteers are increasingly involved in the organisation of sporting events, including young people doing school community service. This research aims to explore the motivational factors behind the involvement of young people from the city and region of Szeged in volunteering at sporting events, and how school community service influences their future involvement in sport as volunteers.

**Materials and methods:** The research surveyed a group of present and former high school graduates (n=349) who participated in a sporting event between 2016 and 2021 to perform school community service. The questionnaires were completed voluntarily and anonymously. The OVMS questionnaire was used to assess the motivations of sporting event volunteers, supplemented with questions on students' attitudes towards community service and their willingness to volunteer in the future.

**Results:** The main motivation for students to participate in sporting events is to help others and the community. However, some students emphasised that their participation was mainly due to compulsory community service. A significant difference was found between athletes and non-athletes in terms of the motivational factors that influenced participation in sporting events. The difference can be

found mainly for items that are specifically related to sport, such as the possibility to meet an athlete in person and the love of sports. Following community service, the majority of respondents would participate in future volunteering activities related to sporting events.

**Conclusions:** The variety of positive experiences gained through sporting events and the development of their Skills and competencies can encourage young individuals to take on repeated future volunteer participation. Therefore, Community service may provide an opportunity for long-term commitment to volunteering. Several students, however, felt that participation in the programme was compulsory, as community service was determined as one of the conditions for obtaining their school-leaving certificate, which showed relations to less propensity to volunteer later than other students.

**Keywords:** school community service (SCS), volunteering, sport event, motivational factor, level of sport participation

**Absztrakt**

**Célkitűzés:** A sportesemények szervezési feladatainak elvégzéséből egyre nagyobb mértékben veszik ki a részüket az önkéntesek, melybe a közösségi szolgálatot teljesítő fiatalok is bekapcsolódnak. Jelen kutatás célja feltérképezni, hogy Szeged város és térségében élő fiatalok sporteseményen önkéntesként

való közreműködése mögött milyen motivációs tényezők húzódnak meg, valamint az iskolai közösségi szolgálat hogyan befolyásolja későbbi önkéntes közreműködésüket a sportban.

**Anyag és módszerek:** A kutatás olyan tanulók, illetve már érettségét szerzett volt középiskolások (N=349) csoportját mérte fel, akik 2016-2021 között valamilyen sporteseményen közösségi szolgálat teljesítésének céljából vettek részt. A kérdőíveket önkéntes alapon és anonim módon töltötték ki. A sportesemények önkénteseinek motivációinak vizsgálatára az OVMS kérdőívet használtuk, melyet kiegészítettünk a tanulóknak a közösségi szolgálathoz való viszonyára, valamint jövőbeli önkéntességi kedvükre vonatkozó kérdésekkel.

**Eredmények:** A tanulók sporteseményeken való részvételének fő indítéka a segítség másokon és a közösségen. A közösségi szolgálat teljesítésének befolyásoló hatása dominánsan megjelenik a motivációs tényezők között. Szignifikáns különbség mutatható ki a sportolók és a nem sportolók között annak a tekintetében, hogy milyen motivációs tényezők befolyásolták a sporteseményeken való részvételt. Főként azoknál az itemeknél lehet megállapítani a különbséget, amelyek konkrétan a sporthoz kötődnek, mint például élsportolóval való találkozásra lehetőség, valamint a szeretem a sportot állítások. A közösségi szolgálatot követően a megkérdezettek többsége részt venne a későbbiekben is sporteseményekkel összefüggő önkéntes munkában.

**Következtetések:** A sportesemények során szerzett pozitív tapasztalatok és az egyéni erőforrásaik fejlődése a fiatalokat arra ösztönözhetik, hogy ismételten vállaljanak ilyen feladatokat a jövőben is.

A közösségi szolgálat lehetőséget adhat az önkéntes munka irányába történő hosszú távú elköteleződésre. Több tanuló kötelezőnek érezte a programon való részvételt, hiszen az érettségi megszerzésének az egyik feltételként determinálták a közösségi szolgálatot; körükben a későbbi önkéntességre való hajlam is alacsonyabb volt, mint a többi tanuló esetében.

**Kulcsszavak:** iskolai közösségi szolgálat, önkéntesség, sportesemény, motivációs tényező, sportolási részvétel szintje

### Introduction

Volunteers are increasingly involved in the organisational tasks of continental and world events and have become key players in the execution of sporting events (Kim, 2018; Kim et al., 2019; Perényi, 2018; Wicker, 2017). Increasing number of international sporting events are also organised in Hungary (Stocker and Szabó, 2017; Polcsik és Györi, 2018; Györi, 2020; Polcsik and Perényi, 2020), where the volunteer involvement of young people is prominent (Laczkó and Paár, 2018; Perényi, 2018).

After the turn of the millennium, service learning in the United States of America has served as a good example for the emergence of similar programmes in connection to experiential learning in education systems in several European countries (Baltes and Seifert, 2010; Levkoe et al., 2020; Taylor and Kahlke, 2017). The community service in schools were also introduced in Hungary and has contributed significantly to a positive shift in volunteering indicators, although their content was somewhat different from the content of service-learning programmes

proven in international practice (Markos, 2021). The aims, however, of community service initiative of Hungary were similar, such as to increase youngsters' civic engagement, motivate them to volunteer, develop their social sensitivity, help them with career orientation and socialisation, and support the expansion of their personal networks (Markos, 2020). In 2016, the so called "school community service" (SCS, Iskolai Közösségi Szolgálat - IKSZ) was introduced in Hungary. A 50-hour volunteer contribution as a prerequisite for entry of final exam closing the high-school years (Bodó et al., 2017; Markos, 2021). Sporting events also offer opportunities for secondary school students to perform this school community service.

In this study, we investigate what motivational factors influence students who choose sports volunteering as a way of completing the 50-hour school community service requirement. As a first step of this study, we introduce theoretical approaches and research findings on volunteering, volunteering in sport; school community service in general are also briefly summarised, which is followed by the methodological content and result of our study.

### **Volunteerism**

Many definitions are used by researchers to define volunteering, due to its context-dependent nature. Volunteering is an unpaid service (Cnaan et al., 1996; Fényes and Pusztai, 2012) that requires a commitment from volunteers in terms of time, effort, and skill development (Holmes et al., 2010; Wilson, 2000). Volunteering is also discretionary activity that is essentially a donation of time,

despite the range of activities that can be considered volunteering (Cnaan et al., 1996). Volunteers are as diverse as the events in which they participate, with various nationalities, races, ages, career backgrounds, and personal characteristics among them (Handy and Hustinx, 2009; Kim, 2018). Given the diversity of activities and characteristics of individuals, volunteer groups are required to have different motives, needs, desires, and behavioural characteristics (Overgaard et al., 2018).

According to Perpék (2011), there are three common aspects to definitions: the activity should be 1) voluntary (thus, not under coercion), 2) not conducted in exchange for payment, and 3) conducted for the benefit of others, help individuals/groups outside the family. Perpék (2011) proposes Czike and Kuti's (2006) definition as a guideline: '*voluntary work is unpaid, voluntary activity carried out for the benefit of individuals or groups outside the family, contributing to the development of a community*' (Perpék, 2011:108).

In relation to the traits of the ideal volunteer personality, participants in previous research have identified qualities such as being sacrificial, empathetic personality and altruistic (Fényes and Pusztai, 2012; Silló, 2015). The Hungarian Statistical Office (2012) estimated the value of voluntary work in the country at HUF 55 billion, which was 0.2% of annual GDP in the period under review (Perpék, 2011). According to the Hungarian Statistical Office (KSH), in 2019, 313,620,459 hours were spent by the Hungarian people on volunteering, with a higher proportion of women than men. The younger age groups spent less time on volunteer-

ing than older citizens, individuals between 60-64 years of age were most active. In terms of educational attainment, those with vocational or training donated the most of their free time, followed by those with tertiary education.

### **Volunteering in sport**

Most volunteers in Europe are involved in some kind of sport-related activity (Perényi, 2020; Perpék, 2011). Researchers consider the presence of volunteers at sporting events to be essential (Costa et al., 2006; Taks, 2013), while their contribution to the life of sport organisations is also prominent and essential (Nagel et al., 2020; Perényi, 2019; 2020). Domestically hosted continental and world championships provide an opportunity for local communities to be directly involved in the delivery of events with high added value in terms of service (Laczkó and Paár, 2018; Perényi, 2018; Polcsik and Perényi, 2021). This process is facilitated by the widespread international practice in world event organisation of involving volunteers (Kim, 2018; Rozmiarek et al., 2021; Taks, 2013; Wicker, 2017). The general perception is that Hungary does not have a long tradition of volunteering, and objective measurement data also shows that the proportion of Hungarians volunteering is below the European average (Eurostat, 2015). Regardless of this general perception, the goals set by organising committees of sporting events in Hungary were achieved in recent years, for example, at the 2017 FINA World Championships, 3,500 volunteers contributed for two times two-weeks period, to help the successful running of the event (Perényi, 2018). The work of volunteers involved in the organisation

of sporting events can generate social benefits at the level of the individual, at the level of the organisation and at the socio-political level (Koutrou and Berber, 2021; Laczkó and Paár, 2018; Wicker, 2017). According to the subjective evaluation of volunteers involved in the organisation of sporting events in their home country, volunteers have improved their communication skills, self-confidence, ability to work together as a team, and their organisational skills (Howard and Burns, 2015; Kaplanidou, 2021; Laczkó and Paár, 2018).

In the context of volunteering in sport, Farrell, Johnson and Twynam (1998) have highlighted the importance of exploring the motivational factors of volunteers involved in sporting activities such as satisfaction, motivation, and commitment. Additionally, the performance of those involved in volunteering directly influence not only the success of the sporting event, but also the effectiveness of the organisation running the initiative (Doherty, 1998; Rozmiarek et al., 2021). However, Dessler (2008) also highlighted the need to pay attention to recruiting the right people at the right time and to assigning them to the right position, otherwise it may cause dissatisfaction among both the organisation running the event and the volunteers involved. Volunteering in sporting events is often different from volunteering in other activities (Kim, 2018; Taylor et al., 2012). In the context of sporting events, volunteering is mostly episodic, in contrast to other volunteering activities, where it is mostly of a longer duration (Kim, 2018; Koutrou and Berber, 2021; Wicker, 2017). Differences can also be observed in the motivation of participants compared to other fields (Al-

exander et al., 2015; Farrell et al., 1998; Giannoulakis et al., 2007; Koutroun and Pappous, 2016; Lim and Ibrahim, 2020).

### **Community service**

School community service (SCS) and volunteering are not identical definitions (Bodó et al., 2017; Markos, 2016). The most striking difference can be found in motivation, as volunteering is an activity that is undertaken of one's own free will, whereas SCS is undertaken to fulfil an external expectation (Markos, 2021). But what are the arguments for understanding SCS as a kind of specialised quasi-volunteering organised through pedagogical means? A common thread could be that SCS is not a paid service, students are free to choose an area of activity that interests them, and in both cases, they are contributing for a socially useful purpose. In addition, both community service and volunteering can contribute to the cohesiveness of a community (Bodó et al., 2017). Based on these similarities, in this work we consider SCS as such community service that provides a possible precursor to volunteering, recognising that SCS as a community service is primarily an educational tool (Matolesi, 2013).

In Hungary, community service has been introduced in an ascending order starting from the 2012/2013 school year. Thus, since 2016, the 50 hours of community service became a prerequisite for all students taking the final exam ending the high-school period (Bodó, 2015; Markos, 2021). In grades 9 to 11, is recommended to complete these hours, spread proportionally if possible. Exceptions are "pupils in adult education and pupils with special educational needs, who may be exempted from completion of SCS by the

decision of the headmaster" (Nkt.,4,15. 2011).

Research on school-based community service in Hungary has focused on the experiences of secondary school students (Markos 2018; Markos, 2021) and the opinions of teachers and school leaders (Bodó, 2016). Secondary school students' opinion about community service among ninth graders are optimistic; two-thirds of them say they have positive expectations about community service, and on average more than 70% of ninth-graders think that the activity is useful and that they feel that the knowledge gained is useful (Bodó, 2015; Bodó et al., 2017). Negative experiences and opinions also exist among graduating students while concluding the evaluation of SCS (Bodó et al., 2017). On the one hand, they directly questioned the usefulness of the activity performed, and on the other hand, their metaphors for community service often included pejorative terms such as "forced labour", "free labour", 'slave labour' (Bodó and Markos, 2019; Bodó et al., 2017).

### **Objective**

The primary aim of the research was to investigate the motivational factors behind youngsters' volunteer participation in sporting events. Furthermore, also to examine whether students gained any useful experiences while volunteering for sporting events. The study also explored how satisfied students were with volunteering in sporting events and how the service provided by SCS influenced their willingness to volunteer in the future.

### **Hypotheses**

- 1) We assume that the opinions of

students who have completed the SCS are the same/similar to the volunteers' opinions on the ideal volunteer qualities.

- 2) As with volunteering in sport, it is assumed that the experience of those who complete the SCS at a sporting event will be positive.
- 3) There will be a difference in the factors influencing volunteering between athletes and non-athletes.

### **Materials and methods**

This research surveyed a group of students and former high school graduates (N=349) who participated in sporting events in the Szeged region between 2016 and 2021, with the aim to perform their SCS community service. The students included in the study were selected by convenience sampling method and volunteered to participate in the study. All participants live in Csongrád-Csanád county, including the Szeged district. The data were collected between September 2020 and February 2021, which coincided with the COVID-19 epidemic. Data collection was hampered by this factor, as no sporting events were organized during this period due to epidemiological risks. Thus, students had to complete the questionnaire with previous events in mind. They completed the questionnaire voluntarily, anonymously, on paper or online. Respondents answered questions in a school setting, mostly in class. Data were analysed using SPSS 24 software.

Data were collected using a modified version of Giannoulakis, Wang and Gray's (2007) motivation scale (OVMS). The scale, originally developed by Farrel et al. (1998), namely the Special Events Volunteer Motivation Scale (SEVMS),

it is the most commonly used measure to explore the motivational factors of volunteers participating in sporting events (Dickson et al., 2015; Khoo et al. 2011; Twynam et al. 2002). Modifications to the adapted questionnaire were necessary, as the instrument was designed to assess the motivation of volunteers at a specific mega-sport event (2004 Olympic Games), where Olympic motivation was the main factor. Out of the 24 items of the original OVMS questionnaire, 15 items were used, and three additional items were added in order to obtain information on students' attitudes towards community service and their willingness to volunteer in the future. Participants were asked to rate on a 7-point Likert scale how much they agreed with the statements (1-significantly disagree; 7-significantly agree). In addition, questions on demographic data were added to the questionnaire, relating to gender, age, type of school, class year and sporting activity.

The items of the OVMS (Giannoulakis et al., 2007) questionnaire were translated using back-translation techniques (Brislin, 1986). The translation from English into Hungarian was carried out by two independent translators and a subject matter expert according to the rules of this methodology. The final version of the Hungarian statements was independently checked by a translator to confirm that all items retained their original meaning. The items were identical in content to the original questions. After the professional translation, minor changes were made to the wording of the questions to fit the topic. The measurement tool used is divided into three sections: 1) demographic data 2) sport event related questions 3) future plans.

## Results

The age of the sample ranged between 14 and 22 years, with an average age of 17.15 years. The age distribution of the sample shows that the 17-year-old age group was the most represented (44.6%). The gender distribution of the sampled students was almost identical: 48% of the students was male (168) and 52% (181) was female. As the 50-hour community service is only compulsory for pupils who enter final examination at the end of high-school, two types of mid-level educational institutions were included, 61% of the participants were upper secondary school students, while 39% were vocational upper secondary school students. 40% of the pupils play sport in a sports club, while 60% of the pupils are not members of a sports club and declare that they do not regularly (at least 2 times a week) participate in sports or physical activity other than daily physical education. Most students participated in events organised by schools and local authorities. In addition, a significant number of the respondents represented themselves at various continental and world events, in

addition to smaller sporting events organised by sports clubs (Table 1).

Responses to the question describing the qualities of an ideal volunteer were grouped around the following eight quality-items: empathetic, dedicated, rule-following, punctual, reliable, energetic, helpful and patient. The quality-items are summarised in Table 2. As an ideal volunteer characteristic, 'empathetic' was the one most frequently mentioned quality-item (N=72). The item 'dedicated' was also mentioned by a high number of students (N=64), while other students named 'rule-follower' (N=57), 'punctuality' (N=42) and 'reliable' as important characteristics. Other items that emerged were: 'energetic' (N=26), 'helpful' (N=23) and 'patient' (N=23).

Next, participants answered questions adapted from the work of Giannoulakis, Wang and Gray (2007). On a 7-point Likert scale, students rated the extent to which each of the listed factors influenced their decision to register for the selected event. The mean scores for each statement are shown in Table 3. The highest average score was for the statement

**Table 1.** Distribution of sporting events by organizers (N=349)

Organization	N	%
School events	139	39.8%
Municipality events	113	32.4%
Continental and world events	52	14.9%
Sports club events	45	12.9%
Total	349	100%

Source: Authors' compilation

**Table 2.** Quality-items mentioned for ideal volunteers, frequency in participant responses (%)

Quality-items	N	%
empathetic	72	20.7%
dedicated	64	18.5%
rule-following	57	16.3%
punctual	42	12.0%
reliable	42	12.0%
energetic	26	7.5%
helpful	23	6.5%
patient	23	6.5%
Total	349	100%

Source: Authors' compilation

'Helping others and the community' with a score of 5.9. The statement 'receiving rewards' received almost the same score from students: 5.8. The third highest score was for 'community service' as an influencing motivational factor with an average score of 5.6. High scores (5.2) were also given to the statement of 'keeping in touch with classmates/schoolmates' and 'memories that will last a lifetime'. Gaining work experience (2.5 points) and the statements 'individual challenge' and 'belonging to a team' (3.0-3.0 points) were less significant influencing factors among participants. The lowest score was given to the statement 'volunteer is a tradition in my family', with participants rating this factor an average score of 1.9.

Respondents also gave their evaluation after the event, and reported on their future plans. In response to the question '*... did I learn something new during my time of community service*', participants gave a relatively high average score of 5.63. Close to half of the respondents (48.1%, N=168) gave a score of 6.0, suggesting that the community service at sports event had taught them valuable skills (Figure 1).

Questions were also asked about students' future plans for volunteering after the completion of high-school SCS community service. The results show that 48.9% of respondents (N=171) would like to volunteer in the future in connection with sporting events. Another 25.5% (N=89) of respondents would also be willing to



**Table 3.** Consideration of factors influencing volunteer registration to sporting events (mean)

Statement	Average*
Helping others and the community	5.9
Receiving rewards	5.8
Community service	5.6
To support the spirit of volunteerism	5.3
Keeping in touch with classmates/schoolmates	5.2
Memories that will last a lifetime	5.2
To learn new skills	4.7
Supporting my own institution	4.7
Opportunity to meet with elite athletes	4.0
To meet new people and make new friends	3.5
I like sport	3.5
Individual challenge	3.0
Belonging to a team	3.0
Opportunity to establish contacts with experts from a sport field	2.5
Gaining work experience	2.5
Volunteer tradition in my family	1.9

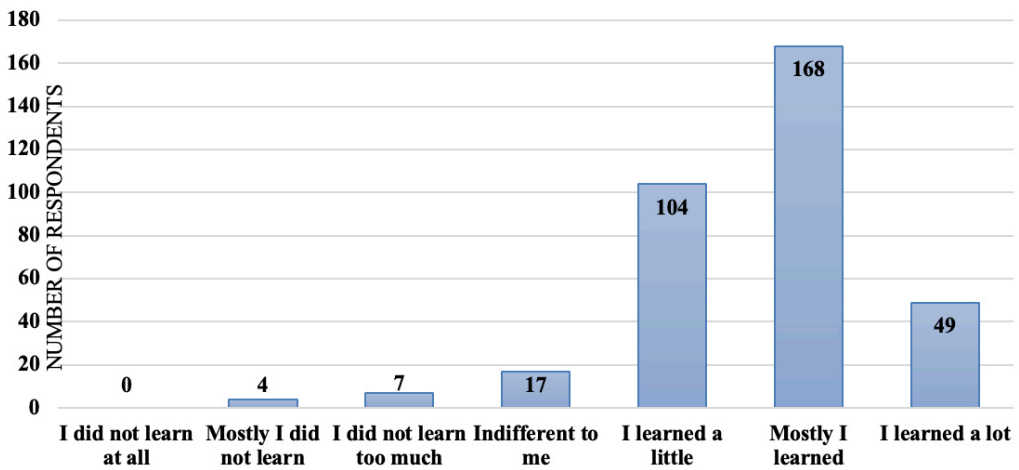
\* Scale of 1-7

Source: Authors' compilation

take part in a volunteering initiative, just not specifically involved in a sport-related activity. Overall, the majority of participants (74.4%) would participate in some type of voluntary activity, while a quarter of respondents (N=89) do not in-

tend to volunteer in the future.

Along classical demographic variables, limited patterns became visible. No significant relationship was found in the responses for age and gender in case of any of the analysed questions. However, a



**Figure 1.** How much did the participants learn during the community service at the sporting event? (N=349)  
(Source: Authors' compilation)

**Table 4.** Differences in motivational factors between athletes and non-athletes

Statement	t	df	p
Opportunity to meet with elite athletes	3.957	348	<0.01
I like sport	4.646	348	<0.001
Individual challenge	3.847	348	<0.001
Memories that will last a lifetime	2.871	348	<0.005

Source: Authors' compilation

significant difference (two-sample t-test) was found between athletes and non-athletes in the sample analysed in terms of the motivational factors influencing participation in sporting events (Table 4). Differences can be found mainly for items that are specifically related to sport, such as the possibility to meet the athletes in person ( $p < 0.001$ ,  $t = 3.957$ ) and the state-

ment "I like sport" ( $p < 0.001$ ,  $t = 4.646$ ). The more positive attitude towards participation of athletes is also reflected in two other questions, as a significant difference was found for the question "have you learned anything new during your time of community service" ( $p < 0.005$ ,  $t = 2.968$ ), where respondents who regularly participate in sports scored an av-

erage of 5.97, with non-athletes slightly behind with an average score of 5.40.

Athletes attached more importance to the event, as can be seen from the mean scores for the statements “individual challenge” ( $p < 0.001$ ,  $t = 3.847$ ) and “eternal experience” ( $p < 0.005$ ,  $t = 2.871$ ). For the statement “I consider serving the community at a sporting event as an individual challenge”, students who were active in sports gave a score of 3.81, while their inactive counterparts scored lower (2.56). The active athletes’ future aspirations were also more dominantly expressed as a goal to undertake volunteer activities ( $p < 0.001$ ,  $t = -3.922$ ) related to sporting events.

For high school students, participation in a sporting event was more strongly influenced by being perceived as an individual challenge than for vocational high school students ( $p < 0.005$ ,  $t = 2.898$ ). High school students gave this statement a mean score of 3.45, while vocational school students’ mean score was lower (2.47).

The motivation to participate in a sporting event was also significantly related to how participants rated the impact of the sporting event on their own competence: ‘did the participant learn something new during the community service’ ( $p < 0.001$ ;  $r = 0.652$ ). Those who gained new knowledge during SCS were more likely to participate in similar sporting events as volunteers in the future.

### **Discussion and Conclusions**

The study has explored the motivating factors of present and former students of Szeged and its region to volunteer at sporting events. Almost half of the students participated in a sporting event, organised by their own institution. The factor of motivation concerning partici-

pation on events organised by the municipality or sports clubs was mostly related to the sporting history and the love of sport, a finding that has been reported by several researchers in previous literature (Bang and Ross, 2009; Kim, 2018; Taylor et al., 2012), therefore our first hypothesis is proven.

The majority of the participating students identified empathy as the main characteristic of an ideal volunteer, which is in line with previous results (Fényes and Pusztai, 2012; Silló, 2015) on a similar topic. According to Czike and Kuti’s (2006) typology of volunteers, the participants in the study represent the new type of volunteers, as most of them focused their motivation on spending their free time in a useful way, and some of them also emphasised the importance of challenges and professional development in their answers. However, several students felt that participation in the programme was compulsory, as community service was identified as a requirement for the school-leaving certificate. Similar findings can also be found in Hungarian studies (e.g. Bodó and Markos, 2019; Markos, 2021). Their propensity to volunteer later was also lower than that of other students. For this reason, the second hypothesis can only be partially accepted, because many students were positive about participating in the sports event, on the other hand, some students considered their activities compulsory. However, athletes attached significantly more importance to the events. Thus, our third hypothesis is valid to a limited extent.

Attention to individual differences and mapping the competences of volunteer participants is thus a crucial task in the organisational phase, both to exploit the hu-

man resources of the volunteer base and to develop participants so that they leave the event satisfied (Koutrou and Berber, 2021; Taylor et al., 2012; Perényi, 2019). In this way, sports clubs and event organising committees can recruit volunteers for the long term. In addition, participation in extracurricular activities can facilitate integration into the labour market (Markos, 2021).

Sports clubs have an important role to play here, as they can work with local authorities and educational institutions to organise sporting events that can provide a community experience for non-athletes, for example through volunteering (Taks, 2013; Taks et al., 2015; Laczkó and Paár, 2018). Therefore, it is important to plan ahead when organising programmes, observe the characteristics of the target group and monitor the satisfaction of participating volunteers during sporting events.

Successful sport socialisation, and in particular the encouragement of sport volunteering, can also foster the completion of school community service in sports. It is also important to analyse the experiences of pupils, particularly in terms of the pedagogical processes and the content included in these programmes.

The long-term effects of school-based community service are not yet known, but future effects could be seen in terms of increased volunteering, civic engagement, or later, easier access to the labour market for young people. Successful involvement in volunteer programmes at sporting events in Hungary could provide thousands of Hungarians with life-changing experiences, contributing to the growth of the popularity of volunteering at a social level. The wide range of pos-

itive experiences gained during sporting events and the development of their personal skills can encourage young people to take part in such tasks again in the future (e.g. Koutrou and Berber, 2021; Laczkó and Paár, 2018). Community service can be an opportunity for long-term commitment to volunteering and can also provide individual resources that can be used to gain benefits in civic sphere.

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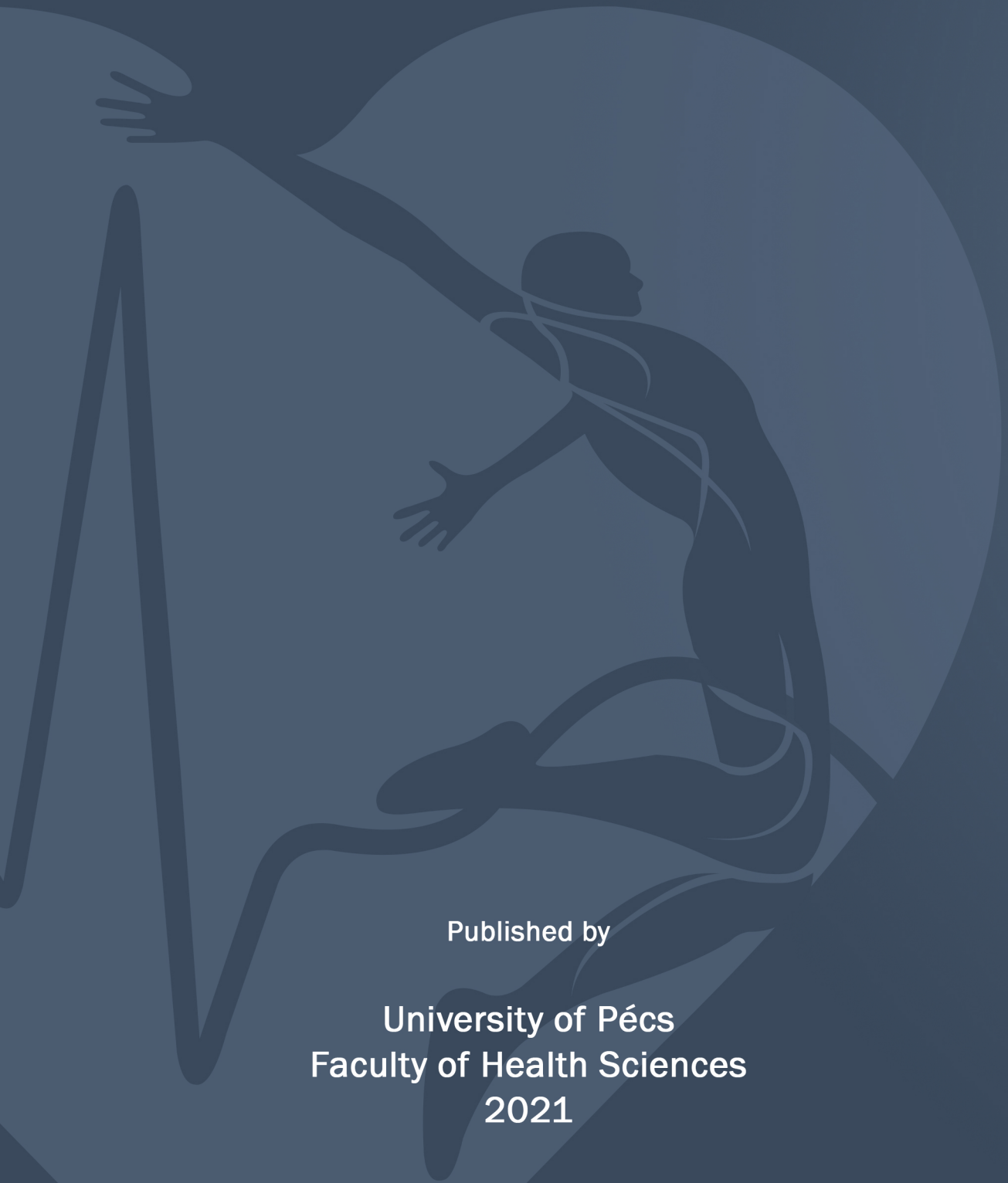
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