

# Social perception and support – An international sports event from the perspective of the residents of the host city

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## ABSTRACT

With the increase of international sports events in Hungary, their number, size, coverage, required investments, social impacts, the number of stakeholders, and people's involvement have also grown, while social support has bottomed out. How can we achieve social support? What are the factors that determine the perception of the residents of the organising city, thus, their social support? This question is answered by analysing the case of the European Youth Olympic Festival in Győr. The empirical research used quantitative methods, obtaining residents' opinions of international sports events before and after the event. The paper shows that a general positive opinion of international sports events is positively correlated with high levels of both spectator and participation sports consumption. Also, those who are personally satisfied with their quality of life generally support the organisation of international sports events and think positively of their impact. The level of satisfaction with life is correlated with satisfaction with the city and a positive opinion of its services. The regression model shows that personal involvement (e.g., interest, participation, and volunteering) is positively related to the evaluation of the impacts of sports events.

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## KEYWORDS

sports event, social support, social perception, residents of organizing city

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Z20, M20, D7

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## 1. INTRODUCTION

Despite programs facilitating the organization of international sports events announced by the International Olympic Committee (hereafter: IOC), six cities withdrew from the Olympics, with Budapest also joining this group in 2017. The same year, Hungary organised major international and national sports events at a world class level – such as the FINA World Aquatics Championships 2017, the European Youth Olympic Festival 2017 Győr (hereafter: EYOF 2017 Győr) with ten different sports – and successfully exploited their tourism-related potential.

In 1998–2002, and again since 2010, sports have been treated as a key strategic sector in Hungary. As a result, we have been witnessing a wave of sports development not only among sportspeople but in all related sectors. “In 2010, when defining the new scheme for sports in Hungary, the Hungarian Government defined three sets of goals: it was decided that the country should host as many sports events as possible, every child should do some sport, and sports facilities that enable meeting these goals should be built” (Stocker – Szabó 2017: 58). In other words, programs launched to support the creation of suitable sports facilities and the organisation of international sports events comprise the focus areas of sports politics and are, hence, subsidised by the Hungarian Government. The two support areas may be connected and may offer development opportunities for city development and tourism. The EYOF 2017 Győr is an example of this scenario.

Hungary has demonstrated outstanding performance in international sports events. In the past three years, one hundred international sports events have been organised annually with state support (Szabó 2021). With the increase of the number, size, and coverage of the events, the required financial and infrastructure investments, social impacts, the number of stakeholders, and the extent of their involvement have also grown in Hungary. On the other hand, social support for international sports events bottomed out in 2017. In this trend, the increasing impacts on the host city’s residents may play a key role.

According to the 2015 data of the Eurostat ILC survey, 25 per cent of Hungarians attend at least one sports event a year, which appears to be favourable and indicates interest but, in fact, is behind the EU average: in this respect, only six of the 32 countries covered by the survey performed weaker than Hungary (Eurostat 2015).

The current importance of the topic is reflected by the fact that, owing to its experience gained from single-sport and youth events, Hungary now enters the competition for the organisation of the largest sports events. Examples of the peaks in this trend in the past have been the FINA World Aquatics Championships 2017 and 2022, the European Youth Olympic Festival, the 2020 European Football Championship, and in the World Athletics Championships in 2023.

As sports organisations’ central products are the events and their viewing (András 2003), international sports events are the most important manifestations of sports economics and the core products of professional sport (András 2011). Their impacts are felt not only in sport, but also in the sports economy and the entertainment industry. Impacts, as well as research into the field, can be grouped according to several criteria.

Based on the above factors, and according to the position of international organisations, one of the most important success criteria of international sports events is social support. Therefore, it is a crucial question how social support can be achieved. What are the factors that determine the perception of the residents of the organising city and, thus, social support? The paper



answers this question by analysing the case of the European Youth Olympic Festival in Győr, a major city in the West of Hungary.

## 2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

### 2.1. Planning sports events using a complex strategic approach

The success of a domestic or international sports event requires planning that applies a complex strategic approach. The literature classifies the outcomes of sports events into three groups: impact, legacy, and leverage (e.g., Chalip 2006; Gratton – Preuss 2008; Taks et al. 2015; Hover et al. 2016).

Based on the examination of the impacts in the sports events industry, it has been concluded that a sports event will not in itself (i.e., automatically) bring the results desired by the investors, or in a broader sense, by the stakeholders (Hover et al. 2016.). To make positive impacts that lead to a sustainable heritage, stakeholders should create mechanisms that lay the foundations for achieving the goals.

The impacts of a sports event will be created fairly automatically as a result of the event's implementation; they are temporary; occur gradually or, in some cases, very suddenly; and disappear after the end of the event (Gratton – Preuss 2008).

If these event-generated impacts continue to exist after the event, they are called 'heritage'. Gratton and Preuss (2008: 1924) define 'heritage' as planned and unplanned, positive and negative, intangible ('soft') and tangible ('hard') heritage, which remains in the organising city after the event. An easy-to-recognise example of hard heritage is the development of sports facilities. Among other things, the term soft heritage refers to people's experience, attitude, and behaviour (Ruta 2015) created by the event. When designing heritage, time and space must also be considered, since the heritage of a sports event may change with time (e.g., negative factors may change to positive ones, and vice versa).

'Leveraging' means the implementation of strategies whose aim is to create the desired impacts and heritage with and through sports events, using them as levers (Hover et al. 2016).

In the case of international sports events, the meaning of leveraging is more than mere heritage planning, as the focus is on the tools required for achieving the economic, social and/or environmental goals. The integration of events into the receiving audience's general product and service portfolio is an aim (Chalip 2004). Heritage planning focuses on the event, while the leveraging approach focuses on the audience and how the event could be integrated into the city's development and its marketing and management strategy.

The impacts of sports events can be grouped in different ways. Impacts can be classified into three, four, or six categories. The threefold grouping of PricewaterhouseCoopers' so-called 'sustainable development assessment framework' takes into account economic, social and environmental aspects (PwC 2005). Economic impacts include global economic impacts and business support, innovation, and diversification; social impacts comprise demographic, employment and skills development, sporting and cultural heritage, and health impacts; environmental impacts include areas related to waste, transport, and energy.

The sports management approach taken by Stocker and Szabó (2017) interprets the impacts of international sports events in a broader spectrum than merely using impact groups, i.e., they consider a complex strategic impact system. "From the point of view of sports management, the



most important impacts are the sports professional, sports policy, and technology impacts that are directly related to the given fields of sport” (Stocker – Szabó 2017: 60). According to their theory,

the impacts of international sports events organised at a given site should be interpreted in the following system of impacts, which apply to both professional and leisure time sport activities: Sports professional impacts (S), Sports policy impacts (P), Social impacts (S), Economic impacts (E), Technological impacts (T), and Environmental impacts (E).

Based on the questionnaire compiled on the basis of a literature review and available research, this study uses a six-fold grouping: 1. economic and, within that category, tourism-related impacts; 2. infrastructure, investments, financial burden; 3. social impacts; 4. transport-related impacts; 5. environmental impacts; and 6. sporting impacts.

Based on the theoretical framework systems, for an international sports event to be successful, it is to be planned using a complex strategy. In other words, not only economic impacts should be surveyed in advance but goals and actions should be identified for other areas as well so that the event should meet its expected results.

## 2.2. Social impacts

As the focus of the present study is on citizens, and the question is about social support, social impacts directly affecting them are of high importance. According to Taks, the term ‘social impact’ means how a given sports event changes collective and individual value systems, behaviour patterns, community structures, and quality of life (Taks 2013). In summary, three main aspects (groups) of social impacts can be identified (Taks 2013):

- sport and participation in sports: promotion of the sports sector and, especially, promoting participation in sports, through sports events;
- attitudes and convictions: the extent sports events influence people’s beliefs, attitudes, norms, and values (e.g., pride, happiness, ‘feeling good’);
- Social cohesion: the creation of shared values, shared challenges, and a community of equal opportunities, built on feelings of trust, hope, and mutuality (Taks 2013; Jenson 1998).

The focus points of social impact analyses are the involvement of the community, integration, and interaction – and these must be integrated into the process of events organisation (Shone – Parry 2004; Bowdin et al. 2006; Yeoman et al. 2004; Bull – Lowell 2007: 234). Shone and Parry (2004: 54) mean the following under social impacts: better social interaction, the development of community cohesion, increasing cultural and social understanding, and improving the community’s self-identity and self-confidence. Bull and Lowell (2007) review the studies written about the perception of sports events by the population and dealing with these social impacts (Ohmann et al. 2006; Cegielski – Mules 2007).

Ohmann et al. (2006) highlight the following as positive impacts: the construction of community, pride, participation in community activities by individuals, entertainment opportunities, and the demonstration of fitness and health. Negative impacts are also listed. They include “anti-social behaviour, crime, overloading, mass collapse, disturbing community life, the alienation of the community and shifting” (Bull – Lovell 2007: 235).

One of the conclusions of the analysis of the social impacts of minor sports events is that their role is to encourage the audience to engage in sports more actively. The second conclusion



is that inspiration – meaning a change in the willingness to do sports in the long term – varies with population segments and event types. [Ramchandani et al. \(2015\)](#) draw the conclusion that minor sports events can contribute to an increase in participants' level of activity.

### 3. METHOD AND HYPOTHESES

This study is part of a complex research project. In this complex research, both quantitative and qualitative methodologies were implemented. The qualitative part included observation, focus group and expert interviews. In this paper, however, only the survey results of the quantitative research are discussed in relation to the research question.

The methodology was chosen after a review of the literature on international sports events. The aim of the present quantitative primary research is to assess how residents of the organising city perceive and experience the impact of international sports events before and during the event. For the compilation of the online questionnaire, I used the questionnaire included in the study by [Üngüren et al. \(2015\)](#): National and International Sports Events – Perception by Local Residents and Impacts. Their factor structure was an important input. This was extended with the questionnaires of additional research ([Balduck et al. 2011](#); [Knott et al. 2015](#)). In the compilation of my own questionnaire, special attention was given to ensuring that the questions were relevant for Hungary. The questionnaire was tested in a pilot project in Székesfehérvár, at the 'Gyulai Memorial' event in the summer of 2017.

Prepared as part of the design of the quantitative survey, the online questionnaire consisted of three parts: general introductory questions, attitude related questions, and information about respondents. The survey asked respondents to rate 41 positive and 41 negative statements on a five-point Likert scale. Attitude questions, which covered the main focus, were posed in eight groups of questions and were aimed at the evaluation of impacts. Both before and after the event, the city's inhabitants were asked about their opinion of international sports events. I allowed 22 days to fill in the pre-event questionnaire between 1 and 22 July 2017, and 806 complete responses were received. For the post-questionnaire, respondents had 21 days between 1 and 21 August 2017, and 703 people completed it. Thus, we had a total of 1,509 completed questionnaires. Through a control question and the checking of seven key variables, it was verified that 172 respondents had completed both questionnaires. Through the compilation of the combined database, a total of 1,337 different cases were identified, of which 172 is the section. On this database, subsequent representativeness was verified along three dimensions: gender, age, and education. For the model compilation of my quantitative research, factor analysis, non-parametric tests, and cluster and linear regression analyses were used. In order to identify the factors that determine the perception of residents in the organising city and, thus, the social support the event enjoys, four hypotheses were formulated.

- H1:* The general positive opinion of international sports events is positively connected to a high level of sports consumption.
- H2:* Those who are personally satisfied with their quality of life generally support the organisation of international sports events and have a positive opinion of the impacts of such events. Life satisfaction is correlated with being satisfied with the city and having a positive opinion of the city's services.



Subjective perception of quality of life, meaning the “subjective perception of quality of life in one’s own evaluation, satisfaction, well-being; happiness in general” (Kiss – András 2017: 2) was examined with the following question: How satisfied are you... (Please place yourself on a scale of 1–10, where 1 means fully dissatisfied, and 10 means fully satisfied) with your financial status, workplace/occupation, state of health – score average. Interviewees were made to evaluate the city’s fifteen different services on a 5-point scale.

*H3:* Of the impacts related to the European Youth Olympic Festival, the evaluation of the impacts that can actually be experienced during the event shows a positive shift.

To examine the shifts, I have compiled a section database with 172 cases using the answers of the interviewees who have filled in both the ‘pre’ and the ‘post’ questionnaires. The aim was to find out how interviewees’ opinions of impacts changed.

*H4:* The higher the level of involvement (event attendance), the more exclusively true it is for this group of people that they have a positive attitude towards and are enthusiastic about the event.

In my fourth hypothesis, I examined the residents’ involvement in international sports events, taking the example of the EYOF. The involvement of residents in the event could be implemented at different levels. In the quantitative survey, the first level is based on interviewees’ answers. At levels 2, 3 and 4, observation was also possible. The difference between levels 2 and 3 is that participation in the sports event and the connected programs was free, while there was a uniform entrance fee of HUF 2,990 to the opening ceremony. At level 4, which is the level of volunteers, they offer their own resources, labour, and time to contribute to the success of the event. Questions about participation in the sports event, the related program, the opening ceremony, and volunteer work were included in the post-questionnaire.

## 4. MAIN SAMPLE CHARACTERISTICS

The comprehensive database contains 1,337 individual cases. I used complex weighting for the analysis of the results both for the descriptive and the explanatory procedures in order to ensure representativity in the follow-up phase. Thus, the findings are generalizable to the population. Weighting is applied to three dimensions: gender, age, and education. Questions concerning people’s sports habits show that, as children, over half of Győr residents were active in sports for over five years, and close to fifty per cent still exercise at least once a week. In answer to questions about consumption, close to fifty per cent of residents said that they frequently follow sports news in newspapers, on the radio, and on television, and 54.5 per cent often watch sports broadcasts. In answer to the question about the subjective quality of life, respondents were to mark on a ten-point scale their satisfaction with their financial standing, occupation/workplace, and state of health. The results reflect that in all three areas, people tend to be more satisfied than not. For their financial standing, the average score is 6.2, for occupation/workplace 6.79, and for health 6.5. In the comparison of quality of life, we see that 50.9 per cent of respondents are more satisfied with their financial standing than average, 61.9 per cent are more satisfied with their occupation, and 56.1 with their state of health. 49.2 per cent of Győr residents had attended at least one international sports event held in Győr in the preceding years. About leisure time activities, 14.5 per cent said that they often attended sports events. One of the



fundamental issues in the general evaluation of international sports events was whether Győr residents supported the city's effort at hosting similar future events; 72.6 per cent of responses were in favour.

## 5. MAIN THEMATIC COMPONENTS AND CLUSTER ANALYSIS

For laying the foundations of multi-variable analyses, I have formed indices that enable the measurement of the groups of attitudes examined with a complex indicator in each case. Prior to creating the compound indicators, the suitability of data was checked. Overall, it appears that the presence and significant extent of correlation, the right MSA and KMO values and Bartlett tests verify that the variables are suitable for factor analysis. The method of factor analysis was selected for the compression of data and for revealing the structure of data. In the process, the starting variables are compressed into so-called factor variables, which cannot be directly observed. I used mostly main component analysis as my method, which is a special case of factor analysis. The scores for the main components of each case have been used for further analysis, primarily for forming clusters.

In the following, I checked if groups of homogeneous respondents could be formed based on their attitudes to sports events. If indeed, they can be formed, it is crucial to see what social criteria and activity structure and system of habits characterize them. I did cluster analysis in order to find out. When defining the number of clusters, in the first step, I had to consider the number of variables included. It is a primary rule that the number of clusters should be lower than the variables included. Therefore, I used procedures creating four, five and six clusters. Each cluster is described for social background, quality of life, and attitude to sports and sports events.

Table 1 shows the final cluster foci. Four of the main components included in the analysis are positively defined, namely the economy, tourism, society, and sport, while infrastructure, society, and the environment are negatively defined.

Based on cluster foci, the clusters are described as follows:

1. *Those with a positive attitude.* They are optimistic, seeing the event as possibly making positive impacts. In the case of positively defined factors, slightly positive assessment, while in

**Table 1.** Final cluster foci

	Main components						
	economy	tourism	infrastructure	society	transport	environment	sport
1.	0.5480	0.5973	-0.4623	0.5139	0.0306	-0.5080	0.3860
2.	-1.4289	-1.5757	1.2784	-1.5253	0.6338	0.8910	-1.4140
3.	-0.0498	0.0469	0.3220	0.1687	0.5968	1.0582	0.0517
4.	-0.5615	-0.4874	0.4971	-0.5653	0.1467	-0.1975	-0.4480
5.	1.17576	1.0677	-1.3633	1.1162	-1.4172	-0.8854	1.2018

Source: author.





the case of negatively defined factors, two positive and one neutral assessment can be deducted. Those who have neutral attitudes concerning impacts on transport are slightly positive for other effects. In the group with positive attitudes, respondents with secondary education are overrepresented. Doing exercise more than once a week is characteristic of this group. They show above average satisfaction with services the city offers, as well as with their own financial situation, occupation/workplace and state of health. In this group, those who often read sports news in newspapers and online and often watch sports news and sports programs on television are overrepresented. According to 54.7 per cent of those with positive attitudes, international sports events mostly contribute to long-term positive changes in the host city. In this group, those in favour of Győr hosting future international sport events are overrepresented.

2. *Opponents.* Opponents are characterized by strong negative assessments of all the seven main components. They are the ones who reject the possible negative effects of the events, seeing them as generally negative. The most active age groups according to economic activity among the opponents, the 40 to 49-olds and the 50 to 59-olds are overrepresented. The proportion of university graduates is higher than in the full sample. According to their employment status, employees are overrepresented. For sports consumption habits, those who never read sports news in newspapers or online, and never watch sports news or broadcasts on television are overrepresented. 44.6 per cent of opponents say that international sports events do not contribute anything to the host city's long-term positive change. Those who completely disagree with the statement that the advantages of international sports events outweigh their disadvantages are strongly overrepresented. Those who are not in favour of Győr hosting future sports events are also overrepresented in the group.

3. *Environmentally conscious neutral group.* The environmentally conscious neutral group is worried about traffic jams and damage to their surroundings, e.g., that their parking space might be taken or that trees might be cut out. There are strongly negative attitudes to transport and the environment. In other fields, they may be regarded as neutral. Women and members of the younger generations, the 14 to 19 and 20 to 29-year-olds are overrepresented in the cluster. It follows partly from their age that, in this group, people with primary education and, according to their employment status, students are overrepresented. Concerning their sports consumption habits, those who rarely read sports news in newspapers or online, rarely watch sports news and broadcasts on television are overrepresented. According to 50.8 per cent of this group, international sports events largely contribute to long-term positive changes in the host city. In this neutral group, those who are in favour of Győr hosting future international sports events are overrepresented.

4. *Pessimists.* Pessimists' attitude is slightly negative concerning impacts. They tend to be neutral about transport and the environment. University graduates are present to a higher-than-average extent in this group. Concerning their sports habits, those who never do any sport are overrepresented. Concerning sports consumption, those who seldom watch sports events are overrepresented. 35.4 per cent of the pessimists both agree and disagree with the statement that international sports events may contribute to long-term positive changes.

5. *True enthusiasts.* True enthusiasts are optimistic about the effects in all seven components. Women and members of the older generations over 60 are overrepresented in the truly enthusiasts' group. Due to their age, they are mostly inactive. Those who, as children, did sports for over five years are overrepresented. True enthusiasts show above average satisfaction with the





city's services, their own financial situation, their occupation/workplace and their state of health. Concerning their sports consumption, those who read sports news in newspapers and online, frequently watch sports news and broadcasts on television are overrepresented. 82.7 per cent of the true enthusiasts believe that sports events clearly contribute to long-term positive changes in the host city. Those who think that the advantages of international sports events outweigh their disadvantages are strongly overrepresented. All true enthusiasts fully support the idea that the city of Győr should host future international sports events.

The examination of cluster criteria enables us to test the hypothesis (H1) that the general positive opinion of international sports events is positively related to sports consumption activity. Based on clustering, it appears that those with a positive attitude and the true enthusiasts, i.e., the positive clusters for international sports events, differ from the others in their sports consumption. Their support is far above average.

Supposing further correlations between the general assessment of international sports events and sports consumption, the relations between the following statements can be tested by pair-by-pair comparisons. Results are presented in [Table 2](#). There is a significant correlation in each case, and the data in the cells reflect the positive direction.

Levels of involvement are tested through the results of a questionnaire. My hypothesis is that a positive attitude to the event is associated with a higher level of involvement. This can be examined by observing the division of levels of involvement within the groups in the clusters. [Figure 1](#) shows the proportion of the involvement of the two positive groups in the cluster. The variables applied are: a) following competitions: the proportion of those who followed sports competitions in any form (television, online, press, on site); b) attending associated events: the proportion of those who attended events associated with EYOF; c) on-site participation: the proportion of those who attended the competitions; d) opening: the proportion of those who attended the opening; e) volunteering: the proportion of volunteers.

Observing the proportions of the two clusters with positive attitudes, it appears that with the increase in the intensity of involvement, concentration in the positive clusters is also getting stronger. Although this trend is not present in the case of volunteering, which can be interpreted as the highest level of involvement, people in the two clusters are still fifty per cent overrepresented compared to their proportion in the sample.

## 6. THE ROAD MODEL OF EVALUATING THE IMPACT OF SPORTS EVENTS

The aim of building a model is to identify the factors that play a role in evaluating impacts and their strengths, and to see if they are direct or indirect. For this purpose, I used the post-database, which had 703 fully completed questionnaires. The database is weighted, i.e., representative of the population. The seven independent variables in the regression models, i.e., sports consumption, sports habits, subjective quality of life, interest in events, general attitude to sports events, and involvement, are measured at a high level. These are the variables used in the model.

I used linear regression for creating the model, a parametric procedure that supposes a linear relationship between the explainer ( $x$ ) and the explained ( $y$ ) variable. This means that when estimating the linear regression, we try to place a straight line on the point cloud of data. The regression line gives us a comprehensive idea of how  $y$  might change with the change of  $x$ . According to [Balázs \(2011: 3\)](#):



**Table 2.** Data by categories and the results of independent tests

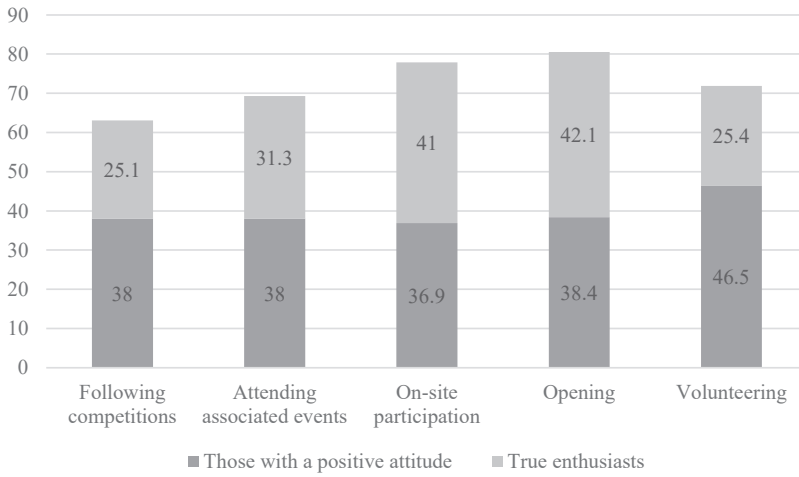
		Have you attended an international sports event held in Győr over the past years as a spectator or fan?		How frequently do you go to sports events as a fan?			Total
		yes	no	often	rarely	never	
International sports events contribute to positive changes	not at all	7.3	11.8	8.8	7.1	18.8	<b>9.6</b>
	mostly not	7.1	14.2	10.4	7.6	21.6	<b>10.7</b>
	yes and no	13.6	19.9	11.0	16.8	20.4	<b>16.7</b>
	mostly yes	36.3	32.0	33.5	36.8	25.1	<b>34.1</b>
	absolutely	35.8	22.2	36.3	31.7	14.1	<b>28.9</b>
		sig: 0.000		sig: 0.000			
Advantages of international sports events are more considerable	not at all	7.6	15.0	11.1	7.8	23.7	<b>11.3</b>
	mostly not	8.1	19.3	6.1	11.9	25.7	<b>13.8</b>
	yes and no	15.0	19.2	11.7	17.2	20.9	<b>17.1</b>
	mostly yes	34.0	28.3	31.7	34.9	17.7	<b>31.1</b>
	absolutely	35.4	18.2	39.4	28.3	12.0	<b>26.7</b>
		sig: 0.000		sig: 0.000			
Support for holding an event	no	14.1	25.0	10.7	13.8	47.2	<b>19.4</b>
	yes	85.9	75.0	89.3	86.2	52.8	<b>80.6</b>
		sig: 0.000		sig: 0.000			

Source: author.

If two continuous variables are in a linear relationship, then with the help of one we can predict the value of the other. We need to select the dependent and independent variables, which however is not a causal relationship! Neither does it mean that we have understood the relationship, but it might help us understand the relationship and, primarily, may yield relevant predictions. The tighter the two variables are related, the smaller the error of the prediction.

When applying the method, there were regression procedures that work as small models in themselves, or can be related to certain hypotheses. The regression probes provide the strength of direct and indirect impacts. In the analysis, I used the Linear Regression Enter method. The seven independent variables are situated in a hierarchy of two levels. The first level is interest in sports, sports consumption habits, the opinion of the city, and subjective quality of life. The second level comprises interest in the event, the general attitude to and involvement in

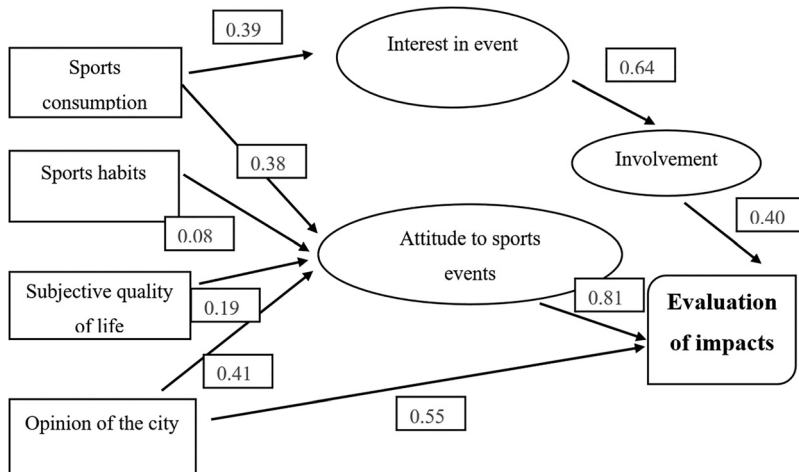




**Fig. 1.** Proportions of those in the positive clusters characterised by various forms of involvement (%)  
 Source: author.

sports events. The two levels of independent variables are built on each other, meaning that direct and indirect impacts can be examined. In examining impacts, I partly concentrated on finding out if there was a significant correlation between independent and dependent variables, and partly on the strength of these impacts. The road model in Fig. 2 shows the outcome.

The effects in the model required at least two criteria to be present. Firstly, the effect of the independent variable had to be significant. The second prerequisite was an adequate level of



**Fig. 2.** Road model  
 Note: The numbers in the boxes show the strength of the relations.  
 Source: author.



explanation. The model contains those correlations where the independent variable explains more than 10 per cent of the dependent variable. The figure shows the values of Beta coefficients for the two criteria. They are comparable, and the higher the value, the stronger the effect. Above all, there are correlations that can be directly established. The strongest effect is between attitudes to sports events, the opinion of the city and personal active involvement, on the one hand, and the evaluation of impacts, on the other. The model indicates roads. The positive opinion of the city directly affects the evaluation of impacts and defines attitude to sports events as well.

## 7. RESULTS – VERIFICATION OF THE RESEARCH HYPOTHESES

### 7.1. H1: The general positive opinion of international sports events is positively connected to a high level of sports consumption

Results of the cluster and linear regression analyses are used to verify the hypothesis. Those with a positive attitude, whose vast majority support the idea that the city of Győr should host international sports events in the future and think that international sports events make a major contribution to the host city's long-term positive changes, have very intensive sports consumption habits: they often read sports news in newspapers and online and often watch sports news and sports programs on television. According to 82.7 per cent of true enthusiasts, international sports events clearly contribute to the host city's long-term positive changes. Within this group, those who think that the advantages of international sports events outweigh the disadvantages are significantly overrepresented. All true enthusiasts support the idea that the city of Győr should host international sports events in the future. As regards their sports consumption habits, those who read sports news in newspapers and online and often watch sports news and programs on television are overrepresented.

Verification based on clusters: Those with a positive attitude and true enthusiasts, i.e., the 'positive' clusters from the point of view of international sports events, are different from other clusters in their sports consumption. Their level of support is also far above average. Assuming a further interrelation between general opinion of international sports events and sports consumption habits, significant differences can be identified for the entire sample through pair tests. With pair-by-pair comparisons, based on the results of independence tests, there is a significant difference in each case between the groups defined based on sports consumption habits with regard to their opinion of the given sports event. In all cases, these interrelations are positive, i.e., the more frequently one attends sports events, the more positive one's opinion, and the more supportive one is of sports events.

### 7.2. H2: Those who are personally satisfied with their quality of life generally support the organisation of international sports events and have a positive opinion of their impacts. Life satisfaction is correlated with being satisfied with the city and having a positive opinion of the city's services

This statement is verified based on the cluster characteristics and a model compiled in a multiple linear regression process. Based on cluster characteristics, those with a positive attitude are more satisfied with the city's services, their own financial situation, occupation/workplace and state of health than average. Compared to other clusters, the proportion of those who think that



international sports events make a major contribution to the host city's long-term positive changes is higher among those with a positive attitude. Within this group, those who support the idea that the city of Győr should host international sports events in the future are over-represented. True enthusiasts are more satisfied with the city's services, their own financial situation, their occupation/workplace and their state of health than average. According to 82.7 per cent of true enthusiasts, international sports events clearly contribute to the host city's long-term positive changes. Within this group, those who think that the advantages of international sports events outweigh the disadvantages are significantly overrepresented. 100 per cent of true enthusiasts support the idea that the city of Győr should host international sports events in the future. The model compiled from the results of the linear regression clearly shows that the subjective perception of quality of life and one's opinion of the city, as independent variables, determine people's attitude towards the event. A positive opinion of the city's characteristics has a stronger impact on attitude towards the event (Fig. 3).

The two starting-point factors – opinion of the city's characteristics and services, and subjective perception of quality of life – are also interrelated; there is a medium-strength positive correlation between the complex indices that provide information about these factors, and these interrelations can be observed in the vast majority of individual indices about the subjective perception of quality of life and the city's characteristics.

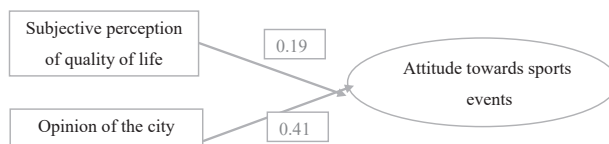
As a third step, focusing specifically on the EYOF, utilising the pre/post implementation options of the research, I tried to identify the shifts in the evaluation of expected vs. experienced impacts.

### 7.3. H3: Of the impacts related to the European Youth Olympic Festival, the evaluation of the impacts that can actually be experienced during the event shows a positive shift

Shifts were examined on the section database, which is comprised of 172 cases and contains those interviewees who are known to have completed both the pre and post questionnaires. The survey examined how the opinions of the members of the panel changed about impacts. The non-parametric Wilcoxon-test was used to verify the hypothesis.

A significant positive shift in opinions was observed in the case of 16 variable pairs. Changed attitudes can be classified into three main groups.

1. Direct everyday experience: statements about transport-related and environmental problems. In summary, they can be directly and immediately perceived. The positive shift in attitudes is assumed to have been caused by the fact that people had more positive experience about these during the event than they had expected.



**Fig. 3.** Subjective perception of quality of life, opinion of the city and of international sports events – interrelations

Source: author.



2. Social impacts: more abstract factors, which are not part of everyday thinking patterns, i.e., opinions are formed by people's experiences about the event – and these, according to the results, were basically positive. Examples include statements about changes in sporting habits.
3. Economic and infrastructure related impacts: the mechanisms behind positive changes are similar to those in the previous category; though preliminary ideas are less concrete about these factors.

#### 7.4. H4: The higher the level of involvement (event attendance), the more exclusively true it is about this group of people that they have a positive attitude to and are enthusiastic about the event

The classification I used to define homogeneous groups in the cluster analysis is also suitable to identify levels of involvement. It is obvious that the proportion of those who belong to the two clusters containing people with clearly positive attitudes increases with the level of involvement. The highest level of involvement, i.e., volunteering, somewhat breaks this trend, yet even in this case there is significant overrepresentation (Fig. 4).

The analysis of the regression model shows that the level of involvement is connected to the evaluation of the impacts of the sports event.

## 8. DISCUSSION

The novelty of the present empirical research is that its subject is the first multisport Olympic event ever organised in Hungary and, secondly, that the questions examined the experience and perceptions of the city's inhabitants, who were strongly affected by this international sports event, before and during the event. The project used ex-ante and ex-post questionnaires.

Having accepted the hypotheses behind the research questions, it may be argued, based on the European Youth Olympic Festival 2017, Győr, that the general positive opinion of international sports events is positively connected to a high level of sports consumption. Those who are personally satisfied with their quality of life generally support the organisation of international sports events and have a positive opinion of the impact of such events. The level of satisfaction with life is correlated with being satisfied with the city and having a positive opinion

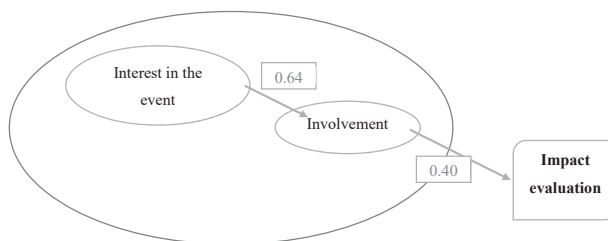


Fig. 4. Road model for the level of involvement and the evaluation of the impacts of the sports event

Source: author



of the city's services. Of the impacts related to the European Youth Olympic Festival, the evaluation of the impacts that can actually be experienced during the event shows a positive shift.

In determining how the residents of the organising city perceive the event and, thus, their social support, I have identified three primary determinants: 1) attitude towards sporting events, 2) evaluation of the city, and 3) active personal involvement. The model developed indicates pathways. Thus, it can be seen what determines the three factors: sports consumption, sporting habits, subjective quality of life, evaluation of the city, and interest in the event.

## 9. CONCLUSION

The conclusions that can be drawn from the comprehensive theoretical and empirical research may be used as guidelines for the organisation of future international sports events. The results described in the study are gap-filling and topical. In the Hungary of 2022, sport is a key strategic sector, and an important element of this approach is to enable the organisation of as many international sports events as possible.

One of the keys to successfully organising an international sports event is having a supportive social environment. Already in the application phase of an event, right-holders request the bidder city to survey the event's expected social reception. Through descriptions of the clusters and by identifying interconnections in opinions about impacts, the present research results provide some guidelines on how a supportive social environment can be created.

An important finding of this study is the fact that international sports events must match the host city's capabilities: find the right sports event for the right city. The starting point is that residents should be satisfied with their quality of life and their city. The city should be 'sporty', both in terms of sports consumption and sporting habits. This can be followed by a strategy to involve residents and make them interested in hosting a sports event. Why is an international sports event advantageous for the residents of the city? This is the puzzle that needs to be answered. In affecting the impact, the legacy, and the leveraging, planners of sports events should use a complex strategic approach.

The expected social support, the sustainability and utilisation of long-term soft and hard heritage and multidimensional impacts can be achieved if, as the first step in the planning process, the host city's limits are identified, and as a second step, they are continuously borne in mind in the full process.

The use of pre and post questionnaires, as part of the methodology, enabled the survey of panel data, which show that the implementation of the event and its experiences will result in a positive change in the opinions of the city's inhabitants concerning the impacts. Witnessing and attending sports events strengthen the population's attachment to their city, and the inhabitants may sense the joy of hosting a prestigious event.

Sport is based on experiences: the research findings indicate that people's opinion of sports events is influenced by their personal impressions. For future events, it is an open question how future experience and increased social support can be predicted and verified in advance, in the course of a longish application, investment and organisation process.

As described in the literature review, there is a difference between expected positive impacts and their actual realisation. There are not only positive but also negative impacts that require





special attention. Naturally, the aim is to take advantage of positive impacts and reduce negative ones.

## 10. LIMITATIONS OF THE RESEARCH, FUTURE OPPORTUNITIES

It is a limitation and, at the same time, a main feature of my research that the questionnaire was distributed exclusively online, i.e., respondents had to be Internet users. Future research about the topic would require extending the timeframe and the geographical scope. Broadening the timeframe could involve the repetition of the research two years after the event. Extending the research geographically would require doing it in another city in Hungary or in a neighbouring country. Within Hungary, potential research sites could be the capital Budapest, or the city of Székesfehérvár or Debrecen. Internationally, Visegrád countries (Czech Republic, Poland, Hungary, and Slovakia), the key countries in the Central Eastern European Region, would be a natural choice. The questionnaire compiled in accordance with an international sample and the research concept are strengths of the research project.

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