

# Does Creating Social Benefits with Hosting Small and Medium-Scale Sport Events “Today” Impact the Number of Sport Events Hosted “Tomorrow”?

**Methammem Faten**

Management Department, The Faculty of Economic Sciences and Management of Nabeul, Nabeul, Tunisia  
Email: methammem.faten03@gmail.com

**How to cite this paper:** Faten, M. (2023). Does Creating Social Benefits with Hosting Small and Medium-Scale Sport Events “Today” Impact the Number of Sport Events Hosted “Tomorrow”? *Open Journal of Social Sciences*, 11, 324-351.  
<https://doi.org/10.4236/jss.2023.119023>

**Received:** August 8, 2023  
**Accepted:** September 16, 2023  
**Published:** September 19, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).  
<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

## Abstract

Sport events hosted are beneficial for host population and governments have made stronger claims about social benefits derived from such events. Using 1990-2022 panel data from multiple countries/cities, the current study aims to examine the relationship between residents' perception of the social impact from hosting small and medium-scale sporting events and their attempt to win the bid to host such future sporting events. According to [Hover et al. \(2016\)](#), the social impact of sport events hosted is multi-dimensional. By using panel data modeling we come to prove that all the social impact's dimensions measured over a year are positively correlated with the number of sport events hosted over the coming year.

## Keywords

Small and Medium-Scale Sporting Events, Host Community, Social Impact, Panel Data Modeling

---

## 1. Introduction

Every city or country will have its own reason as to why they assertively bid to host sporting events. Governments all over the world put huge amounts of money into bidding for, and then hosting, sports events.

In fact, government authorities around the world are aiming to improve their ability to achieve social and economic objectives by investing in sport events. There is growing recognition that sport events, varying from small scale sport events to mega sport events with an international scope, are seen as significant

tools for social and economic development (see, for a literature review, Kellett et al., 2008; Misener, 2015; Cornelissen, 2008).

Since the 1980s, the study of sport events has attracted significant attention from academics (see, for example, Gratton et al., 2001). Academics representing this stream of research emphasized that various short-term and long-term benefits have been asserted to support the hosting of sport events. Research into the question of the impact of sports events has grown significantly over the years (Wicker et al., 2012; Preuss, 2015).

Indeed, due to the huge sum of public money spent on the construction of facilities and the production of sporting events, public officials, event organizers, and international sport organizations are also under increasing pressure to justify these public subsidies by demonstrating that the benefits brought to the host city by these events go over the cost (Liu, 2016). Many countries and cities compete to host sports event even though economists generally find that the costs exceed the benefits (see, for example, Porter & Chin, 2012).

It is apparent from the literature that events are thought to produce different types of impact for the hosting community (Fredline, 2004; Ritchie, 1984), which can be classified into economic and social impacts (Chalip, 2006). While the economic impact of such events has been the main focus that has received most research attention (Crompton, 2001; Gratton et al., 2005), it is also the most controversial area that has been angrily debated.

So far, no well-developed methods have been created to measure the impact that sport events have outside the economic domain. The social impact as a result of a sport event is, to a certain extent, clear and unquestionable (e.g. Mourato et al., 2005). To date, sport events impact studies have been mainly economic in nature, whereas thorough evaluations of the social impact are relatively scarce (e.g. Preuss, 2004; Balduck et al., 2011; Kim & Petrick, 2005; Kim & Walker, 2012; Waitt, 2003). A call has been put forward to go beyond economic impact as some argued that social benefits may in the long run be greater than the immediate economic impact that these events generate (Crompton, 2001; Liu and Gratton, 2010).

Based on Van Bottenburg's (2009) conceptualization, the social impact that is generated by sport events is "easy to see, but hard to prove". Studies representing this stream of research suggested that for those who perceived higher social impacts, the stronger their effort for hosting or bidding to host sport events get.

The purpose of the current research is to examine the relationship between the social impact of sport events perceived by host community and their attempt to win a bid to host future sporting events. We are focused only on small and medium-scale sporting events.

The rest of this paper is organized as follows. The definition and dimensionality of the social impact of hosting sporting events based on the existing literature are expanded in the next section. This followed by the development of hypotheses that are intended to identify the relationship between the social impacts of sport events and the number of future sport events hosted. Panel data modeling

are described in the method section. Results are provided and discussed after which conclusions are formulated. Finally some implications are identified and some limitations and directions for future research are presented.

## **2. Literature Review and Hypothesis Development**

### **2.1. The Definition and Dimensionality of the Social Impact of Hosting Sporting Events**

In the scientific literature, impacts of sport events are classified in various ways. Reviewing the literature, four main categories can be distinguished (Hover et al., 2016)

- Economic impact (e.g. contribution to GDP, employment, incoming tourism...);
- Environmental impact (e.g. waste management, carbon foot print, CO<sub>2</sub> reduction);
- Physical impact (e.g. public transport infrastructure, housing projects, sport facilities);
- Social impact (explained below).

Social impact refers to the manner in which a sport event prompts changes in the collective and individual value systems, behaviour patterns, community structures, lifestyle and quality of life (Taks, 2013). According to Crompton (2004) social impact characterizes the only type of event benefits that internally focuses on local residents, and therefore has been identified “as a core source of potential event value” (Chalip, 2006).

Hover et al. (2016) stated that three main aspects of social impact can be identified:

- 1) Sport and sport participation: the degree to which sport events stimulate the sport sector and especially stimulate participation in sport for hosting community.
- 2) Attitudes and beliefs: the degree to which sport events influence people’s beliefs, attitudes, norms and values (e.g. pride, happiness, “feeling good”).
- 3) Social cohesion: the ongoing process of developing a community of shared values, shared challenges and equal opportunities, based on a sense of trust, hope and reciprocity (see, Jenson, 1998), as a result of a sport event.

### **2.2. Dimensions of the Social Impact and Their Link with the Hosting of Sport Events**

There is no commonly agreed framework for social impact analysis, it is generally considered to be multidimensional (for a review see, Balduck et al., 2011; Ritchie et al., 2009; Ohmann et al., 2006).

#### **2.2.1. Sport and Sport Participation Generated by Sport Events Hosted “Today” Impacts the Number of Sport Events Hosted “Tomorrow”**

Advocates of sport events frequently refer to the manifestation of a “demonstration effect”. A demonstration effect is a process by which people feel inspired by

elite sport and the achievements of elite sportsmen and women at sports events to participate in sport themselves; to increase their sport participation or to engage in new sports (Weed, 2009).

Perks (2015) found that the 2010 Olympics in Vancouver had approximately no impact on national sport participation levels, but there was a momentary and modest raise in sport participation in the Vancouver area immediately after the event.

This attention is seen in the work of Hover and his colleagues (2016). They found out that the event (In the Netherlands, the World Hockey Championships in 1998 in Utrecht) did act as a catalyst for rising hockey participation levels.

In the case of the start of the Tour de France, 24 percent of the visitors answered that they were stimulated to become active in sports. Among non-participants in sports this share was 18 per cent (Van Bottenburg et al., 2016).

In the Netherlands, 41 percent of sport participants visit a sport event at least once a year, as opposed to 18 percent in the case of nonparticipants (Hover & Romijn, 2012). Obviously, sport events that have the ambition to boost interest in the event and aim for a demonstration effect among non-participants in sports set themselves a challenging task (Hover et al., 2016). Physical educationists in Brazil expect that hosting sport events will only be effective if plans are developed and implemented for building sport participation (Reis et al., 2013).

The reverse is also true, because the literature largely agrees that the nature and quality of future events largely depends on the planning that takes place to engender value (Bramwell, 1997). Building on event outcomes generated when the event took place in the same country previously may be useful and inform planning because it may contribute to planner's and managers' effort to maximize the opportunities presented (Reis, de Sousa-Mast, and Gurgel, 2013). Hence, sport participation is linked to the profiling of an increased interest to host events. Therefore, planning for an increase in sport participation and designing well informed programs and strategies to leverage on sport development outcomes is critical for future hosting or bidding to host sport events (Wicker and Sotiriadou, 2013; Carroll, 2018).

Building in the work of Taks (2013), key stakeholders of sport events support the idea that increasing sport participation through events is sufficient to stimulate strategic intentions or plans to host future sport events. Additionally, sport participation has been advanced as one of the critical components to encourage countries to attempt bidding for major sporting events and resist the pressure to host big competitions (Chalip et al., 2017). We thus hypothesize:

**H-a: Sport and sport participation generated from sport events hosted “over a year” impacts the number of sport events hosted “over the coming year”.**

### **2.2.2. “Attitudes” and “Beliefs” and “Sport Events Hosted”**

**1) Community pride resulted from sport events hosted “today” impacts the number of sport events hosted “tomorrow”**

Some studies, such as that of [Hover et al. \(2016\)](#) empirically show that in countries around the world, public money is invested in sport events with the objective being to promote feelings of pride and a sense of belonging to a local or national community. In fact, pride includes pride about one's city, region or country, or pride about the participating (national) team ([Hover et al., 2016](#)). In a similar vein, [Elling et al. \(2014\)](#) clearly highlighted that national performance in international sport events may lead to small, short-term excitements in feelings of national sporting pride.

Likewise, there is evidence for the manifestation of feelings of pride as a result of national success in Germany. [Hallmann et al. \(2013\)](#) have shown that 66 percent of German citizens felt proud and just about the same share is happy when German athletes are successful at sport events.

It is evident that elite sporting success can go ahead to substantial increases of feelings of pride due to this performance among citizens in the specific country. Citizens of a host city (or country) can be proud owing to the event taking place in their "back yard" ([Hover et al., 2016](#)).

As for the FIFA 2006 World Cup in Germany, some observers even spoke of a new era of national pride. A year after the tournament, 62 percent of Germans stated a lasting increased national pride, which they related directly with the World Cup in the previous year ([Cornelissen & Maennig, 2010](#)). It appears, therefore, that residents not only feel proud about the organisation of these events in their back yard, but they also identify themselves with these events ([Hover et al., 2016](#)).

The FIFA 2010 World Cup in South-Africa also offers interesting insights. Notably, due to the work of a foundation which was set up to capitalize on the increased excitement about football in a non-host small-town community, the event also led to short term increased levels of community pride in that region ([Swart et al., 2011](#)). In spite of the effect on national pride, the FIFA 2010 World Cup had marginal effects on the national identity experienced by local residents ([Heere et al., 2013](#)). Prior studies indicate that most countries strategies have become more focused on attracting international events because hosting an event can be a means to reinforce the sense and the pride of being part of a community and enhance a country's national spirit, by showing the world what the community is able to do ([Gursoy, Chi, Ai, & Chen, 2011](#); [Kim et al., 2015](#)).

It has been argued that, different factors affected the position of country to bid to host international sport events, among these factors community pride because events "can also have a positive impact on self-identification of the local community and can, through this renewed group identity, enhance place identity and pride in the area" ([Wood, 2006](#)). With reference to [Dwyer et al. \(2000\)](#) and [Wood \(2006\)](#), this has been labeled in the literature as civic pride which entails opportunities of home hosting and socio-cultural interaction. Thus, we propose the following hypothesis:

**H-b: community pride resulted from sport events hosted "over a year"**

**impacts the number of sport events hosted “over the coming year”.**

**2) Happiness resulted from sport events hosted “today” impacts the number of sport events hosted “tomorrow”**

On the opinion of Kavetsos and Szymanski (2010) and Kavetsos (2012) life satisfaction increases at country level when this country is hosting a major sport event.

Positive effects of hosting such events are also detectable at the individual level. Two studies have shown that South Africans perceived the FIFA 2010 World Cup to have increased well-being (Gibson et al., 2014; Kaplanidou et al., 2013). Similar results were found in Sydney after the 2000 Olympic Games (Waite, 2003).

In this regards, Kavetsos and Szymanski (2010) concluded that hosting major football championships is significantly associated with increased reported happiness in the period following the event.

Under this viewpoint, Londoners reported increased levels of happiness and life satisfaction during the Olympic Summer Games 2012 compared to a baseline measure one year before (Dolan et al., 2016). Moreover, the London data are also compared to a control group of residents from Berlin and Paris, whose life satisfaction did not increase considerably during the 2012 Olympics. This design lends additional support to the notion that hosting the event has caused the effect. According to the above mentioned, creating a festival atmosphere leading up to, and surrounding the events (e.g., Chalip, 2006), may capture the interest of residents; make them more aware that these are being hosted, and potentially make them happier.

Mannell & Snelgrove (2011) have suggested in this context that events create opportunities for pleasure and fun, keep individuals busy, and allow people to escape from their daily lives (Shipway & Jones, 2007; Snelgrove et al., 2008), mechanisms which positively affect feelings of happiness.

This may stimulate stakeholders’ strategic intentions or plans for hosting sport events. We therefore hypothesize:

**H-c: happiness resulted from sport events hosted “over a year” impacts the number of sport events hosted over the coming year.**

**3) “Feel-good factor” resulted from sport events hosted “today” impacts the number of sport events hosted “tomorrow”**

A “feel-good factor” refers to senses of feeling good, (communal) wellbeing and happiness as a result of a sport event. It is used alongside the term happiness, but they are different. Feeling happy is a state of mind. It invokes feelings of pleasantness, of mental balance, of contentment with what you have. Feeling good is a physical state, without complaints, symptoms of disease, or feelings of pain.

Feel-good factor can be defined as “a condition of psychological balance and harmony” (Theodorakis et al., 2015), it also referred to as “psychic income” (e.g. Gibson et al., 2014).

As for the FIFA 2006 World Cup in Germany, the feel-good effect in the country was intense and long-lasting (Cornelissen & Maennig, 2010).

British citizens experienced an effect of the 2012 Olympics both during and after the event. During the Games 84 percent experienced a positive change in the mood of the British public (3 percent negative). In the year after the Games there still was an effect, although slightly different. In 2013, 70 percent of the public still experienced a positive change in the mood (7 percent negative) (University of East-London, 2015).

A study among British youth (16 - 24 years) at the start of 2013, approximately six months after the closing ceremony of the 2012 Games, learned that quite a large majority had positive feelings when looking back at the Games in their capital (Legacy Trust UK, 2013).

As regards the 2000 Games in Sydney, Australians felt an increase in positivity among the population two years before Games, which increased further as the event approached. This “buzz” was expressed in feelings of patriotism, community spirit and the desire to participate as a volunteer (Waitt, 2003).

Kavetsos & Szymanski (2008) found that hosting major events is associated with increased reported life satisfaction in the period following the event. The researchers conclude that it is not winning at the event, but being the host, that creates the feel-good factor.

The effect was so large that the 2006 World Cup turned into one of the most significant events in Germany. The (unexpected) success of the home team was an important part of the feel-good effect among the domestic population (Cornelissen & Maennig, 2010).

The “feel-good factor” associated with event hosting has been the theme of recent academic research (e.g. Maennig and Porsche, 2008). This feel-good emotion may arise from a number of causes: the enjoyment of attending events, of being involved as a volunteer organizer, enjoyment of the proximity of the events even if one does not attend cultural showcases, and national pride (Kavetsos and Szymanski, 2008). local communities often value the “feel-good” aspects of events hosted, and are prepared to put up with temporary inconvenience and disruption because of the excitement which they generate, and the long-term expectation of improved facilities and profile’ (Bowdin et al., 2006).

Therefore, the following hypothesis is proposed:

**H-d: feel-good factor resulted from sport events hosted “over a year” impacts the number of sport events hosted “over the coming year”.**

### **2.2.3. Social Cohesion and Sport Events Hosted**

**1) Involving community resulted from sport events hosted “today” impacts the number of sport events hosted “tomorrow”**

Minnaert (2012) states that legacy goals are typically based on the host population in general, instead of local community, residents or other private stakeholders. Misener and Mason (2006) highlighted the importance of embracing the core values of residents, community groups, and neighbourhood associations

as a condition to create positive impacts from events, which are mostly ignored while preparing a bid and when organising a sport event.

Although social networks are broadly regarded as a pivotal component of social capital (Portes, 1998), we know very little about how relationships are forged or strengthened via events. We do know, however, that social networks play a significant role in health (Poortinga, 2006), community development (Bull & Jones, 2006), and entrepreneurial success (Jenssen & Koenig, 2002).

The unique feature of event communities is that they enable relationships to form across age, gender, and social class boundaries that are not normally broken outside the fun space of events (Hover et al., 2016).

Borgmann (1992) has suggested in this context that the coming together of people around a meaningful leisure activity presents a positive context for a “community of celebration”.

Sport events are often seen as a promising way to encourage communication and communal celebration, as they have a certain “intrinsic power” to activate people, remove barriers between groups and change people’s attitudes and behaviour (Hover et al., 2016).

That was the case in several running events in the Netherlands where around 80 per cent of the visitors and 60% of the participants agreed that the event was a good occasion to meet with friends. During the same running events, around 75 per cent of the visitors and 75% of the participants agreed that they had experienced a sense of solidarity during the event (Heuvel Van Den, 2014; Slender & Molenaar, 2015).

An evaluation of the European Youth Olympic Festival (EYOF) also provides valuable evidence. Nearly half of the volunteers (47%) reported after the event that they had made new friends. Moreover, 77 percent of the volunteers argued that they were willing to act as a volunteer at a comparable event and 20 percent said that they were possibly interested (Breedveld et al., 2014). This can be a factor affected the government’s decision about investments in sport events. Therefore, the following hypothesis is proposed: **H-e: involving communities resulted from sport events “over a year” impacts the number of sport events hosted “over the coming year”.**

## **2) Community excitement resulted from sport events hosted “today” impacts the number of sport events hosted tomorrow**

Many authors have pointed out that event and community excitement represents the creation of euphoria that hosting an event brings to the community and its residents. Explicitly, event excitement examines the aspects of the event (i.e., game, sport, fan interactions) and the role these play in psychic income generation. Community excitement, however, measures the role the event has upon generating excitement within the host community (Gibson et al., 2012).

Sport events are related to the pleasure that both athletes and spectators will feel attending or competing in the event. The athletes will have an opportunity



to overcome challenges inherent to their participation in the event, while the spectators and residents will have an opportunity to socialize with other like-minded individuals that are also excited about the event (Green, 2001).

In addition, the offer of side activities from the main event also promotes an atmosphere of fun and excitement with hopes to attract more spectators or participants (Ribeiro et al., 2021). Green (2001) recommend that participating in or watching a sport event is a choice on how to spend one's leisure time and the pleasure one derives from doing so. In the opinion of Chalip (2006), community excitement that is present in a sport event is one of the reasons why they are organized and why they are so popular.

Previous studies (see, for example, Bowdin, Allen, O'Toole, Harris, & McDonnell, 2006) have suggested that local communities are prepared to put up with temporary inconvenience and disruption due to the excitement that they generate and their long-term expectations.

Schulenkorf and Edwards (2012), in particular, showed that a small-scale multiethnic multi sports event accompanied by cultural performances such as music, local dance, local gastronomy, and other associated activities that resulted in greater community excitement. This may encourage countries sign up for more sport event's bidding and hosting.

Therefore, the following hypothesis is proposed: **H-f: community excitement resulting from sport events hosted "over a year" impacts the number of sport events hosted "over the coming year".**

### **3) Community attachment resulted from sport events hosted "today" impacts the number of sport events hosted tomorrow:**

Building on the work of Chalip (2006) community attachment represents the ability of major sport events to create feelings of attachment for residents with their own community. Indeed, scholars have speculated that hosting sport events can enhance individuals' social interaction and morale as a member of the community.

It is useful to identify that community attachment represent the emotional connections that people have to a particular community and are described as "rootedness" and "belongingness" as a result of the event being grounded in the local culture (Hummon, 1992).

Prior studies indicated that sport events facilitate strong and tacit interactions among host communities and improve individual social confidence as community members (Heere & James, 2007; Liu, 2016). In a similar vein, other researchers have discussed sport events as a means through which to help those involved rediscover a sense of community through participation (Smith & Ingham, 2003). While there is a consensus among scholars that sport event's can yield these ends (Gibson et al., 2014; Liu, 2016; Zagorin et al., 2017; Zhou et al., 2018).

Research on sport and sport entertainment events (e.g., Crompton, 2004; Kim & Walker, 2012; Kim et al., 2015; Liu, 2016; Taks et al., 2015; Zagorin et al.,

2017) revealed that attachment to the community was associated with sport events. The authors of these studies confirmed that events promote social interaction, a sense of belonging, and increased self-esteem in the community.

In particular, some studies, such as that of Taks et al. (2015) empirically show that given small and medium-scale events may generate stronger feelings of community belongingness and empowerment.

This means that event organizers of the host community should work hard to enhance and leverage social interactions by linking these events to local culture in order to preserve the traditional and cultural aspects of the event. This may bring about an increase in the number of countries investing in hosting sports events.

Therefore, the following hypothesis is proposed: **H-g: community attachment resulted from sport events hosted “over a year” impacts the number of sport event hosted “over the coming year”.**

### 3. Research Methodology

In this part we attempt to study the relationship between small and medium sporting events' social impact perceived by host residents and the government's attempt to host such future sport events using panel data during the period 1990-2022.

In a first section we present a descriptive analysis of the variables used in our study so we will calculate for our variables min, max, mean and standard deviation.

In a second section we try to conduct a descriptive observation: we present the correlation matrix and the variance-covariance matrix, with correlation coefficient.

In a last section we apply the various appropriate parametric tests, and then we perform the simple linear regression on the panel data after testing the validity of this process.

#### 3.1. Data Presentation

To bring theoretical propositions closer to reality, it is necessary to study a systematic relationship between concepts and observable reality. Indeed, this empirical study used on panel data from 31 countries/cites.

The sample countries/cities are: Armenia, Belgium, Bolivia, Cambodia, Cameroon, Egypt Finland, Ghana, Hungary, Iraq, Kazakhstan, France, Malaysia, Madagascar, Mongolia, Namibia, New Zealand, Nigeria, Netherlands, Oman, Poland, Peru, Portugal, Romania, Sweden, Switzerland, Slovenia, Thailand, Tunisia, Uganda, Vietnam observed over the period from 1990 to 2022.

The data sources used in this study are:

- Sports Database
- Sports calendar and event Database
- World Database of happiness

Panel data presentation is the first stage of this research, **Table 1** below summarizes the main descriptive statistics of the variables used in our analysis.

### 3.2. Linear Correlation between Variables

We will calculate correlations between variables in order to detect multicollinearity when independent variables in the regression model are highly correlated to each other.

All correlation coefficients significant at the 0.05 level are identified with a single asterisk (\*) (See **Table 2** below).

The correlation matrix (**Table 2**) shows that the highest correlation coefficients exist between:

Community pride (COMP) and involving community (INVCO) (0.7130).

Sport and sport participation (SSPA) and feelgood factor (FGFA) (0.7327)

Community attachment (COMAT) and community pride (COMP) (0.7875).

**Table 1.** Data description.

Variable	Abbreviations	Mean	Standard deviation	Min	Max
The number of sport events hosted next year.	SEHO	3.000	0.355	1	4
Sport and sport participation	SSPA	4.154	0.717	1.857	4.584
Community pride	COMP	3.227	0.421	1.201	3.847
happiness	HAP	4.911	0.857	2.401	4.202
Feelgood factor	FGFA	3.120	0.405	1.014	3.661
Involving community	INVCO	3.651	0.284	1.554	4.004
Community excitement	COMEX	3.538	0.470	1.620	4.335
Community attachment	COMAT	4.125	0.222	1.334	4.330

**Table 2.** Correlation matrix.

	SEHO	SSPA	COMP	HAP	FGFA	INVCO	COMEX	COMAT
SEHO	1.0000							
SSPA	0.2322	1.0000						
COMP	0.0865*	-0.0225	1.0000					
HAP	0.5622	0.0325	0.4775*	1.0000				
FGFA	0.1110*	0.7327*	0.2403*	0.1648	1.0000			
INVCO	0.1648*	-0.3455*	0.3130*	0.1521	0.7184*	1.0000		
COMEX	0.3377*	0.3648*	0.6522*	0.1542	0.0844	0.1512*	1.0000	
COMAT	0.1524*	0.1256	0.7875	0.1458	0.3324	0.1458*	0.1745*	1.0000

### 3.3. Statistical Model Specification

Estimating model is used to establish relationship between social benefits perceived by host populations over a year and the number of sport events hosted over the coming year as follows:

$$\text{SEHO}_{i,t+1} = \alpha_i + \sum_{k=1}^7 \beta_{k,i} X_{k,i,t} + \varepsilon_{i,t}, \quad i \in [1,31] \text{ et } t \in [1,33]$$

where ( $i$ ) denotes the country studied (31 countries) and ( $t$ ) refers to the period of analysis (33 years). The dependent variable in the model is SEHO.

In addition,  $X_{k,i,t} = (X_{1,i,t}, X_{2,i,t}, \dots, X_{K,i,t})$  represents variables related to the social benefits perceived by host community, these are the  $k$  explanatory variables of the model.

The parameters  $\alpha_i$  et  $\beta_{k,i}$  represent the individual specificity (country) indeed, it may differ in the individual dimensions, but are constant over time.

Finally, the error term which is independent and identically distributed (i.i.d) follows a “multivariate normal distribution”  $N(0, \sigma_\varepsilon^2)$ , represented by the term  $(\varepsilon_{i,t})$ .

Regarding the analysis of the impact of the social benefits perceived by host population over a year on the number of sport events that will be hosted over the coming year (we concentrate only on events that happen every year), we are going to estimate a linear model using panel data regression.

### 3.4. Regression on Panel Data

After presenting model variables, we present the estimation technique for panel data.

#### 3.4.1. Model Identification

The study of the number of sport events hosted over the coming year model, according to panel data is carried out under the following assumptions.

H1: exogenous variables are uncorrelated with the error term. Hence, the assumption of the linear model is checked due to the lack of the endogeneity problem.

H2: the number of sport events that will be hosted over the coming year is an endogenous variable.

Since, panel data is data of a phenomenon observed over two dimensions, one for individuals (countries) and one for the time (years). They are indicated by  $i$  and  $t$  respectively.

Two questions arise here, the first is about the identification of the announcement effect for each individual in the panel data, which is defined by the effect that differs from one individual to another but is constant over time. The second is about the appropriate effect statistical model to use either it is random or fixed.

We consider the following linear Question (1) that we can estimate from panel data.

$$\begin{aligned} \text{SEHO}_{i,(t+1)} = & \alpha_i + \beta_{1,i} \text{SSPA}_{i,t} + \beta_{2,i} \text{COMP}_{i,t} + \beta_{3,i} \text{HAP}_{i,t} + \beta_{4,i} \text{FGFA}_{i,t} \\ & + \beta_{5,i} \text{INVCO}_{i,t} + \beta_{6,i} \text{COMEX}_{i,t} + \beta_{7,i} \text{COMAT}_{i,t} \\ & + \varepsilon_{i,t}, \quad i \in [1,31] \text{ et } t \in [1,33] \end{aligned} \quad (1)$$

With:

$\text{SEHO}_{i,(t+1)}$ , is the number of sport events hosted for each individual ( $i$ ) over the coming year ( $t + 1$ ).

$\text{SSPA}_{i,t}$  is the level of residents' participation in sport activities for each individual ( $i$ ) over a year ( $t$ ).

$\text{COMP}_{i,t}$  is the level of the host population's sense of community pride resulting from sport events hosting for each individual ( $i$ ) over a year ( $t$ ).

$\text{HAP}_{i,t}$  is the happiness's level of residents resulting from hosting sport events for each individual ( $i$ ) over a year ( $t$ ).

$\text{FGFA}_{i,t}$  is the level of feel-good factor for the host nation resulting from hosting sport events for each individual ( $i$ ) over a year ( $t$ ).

$\text{INVCO}_{i,t}$  is the level of involving community resulting from hosting sport events for each individual ( $i$ ) over a year ( $t$ ).

$\text{COMEX}_{i,t}$  is the level of community excitement resulting from hosting sport events for each individual ( $i$ ) over a year ( $t$ ).

$\text{COMAT}_{i,t}$  is the level of community attachment resulting from hosting sport events for each individual ( $i$ ) over a year ( $t$ ).

$\alpha_i$  a constant that differs from one individual to another.

$\varepsilon_{i,t}$  error term which is different for each individual at each point in time.

This model describes 31 equations where each one encloses 33 observations, with a total number equal to 1023 observations.

### 3.4.2. Panel Data Estimation

#### 1) Fisher's test

We perform the Fisher's exact test for testing the homogeneity and the overall significance of the model.

If  $\alpha_i = \alpha$  and  $\beta_i = \beta$  for  $i \in [1,31]$ , there is a single equation model and it comes to an homogenous panel data, that we are going to estimate by the ordinary least squares (OLS) method under the following assumptions:  $V(\varepsilon_{i,t}) = \sigma^2$  and  $E(\varepsilon_{i,t} \varepsilon_{j,t}) = 0$ .

The estimation results are shown in **Table 3**: summary of the main results of the panel data regression.

Variables state the expected signs, defined by the theoretical model, where:

“Sport and sport participation” over a year had a positive and significant effect on “the number of sport events hosted” over the coming year. The  $p$ -value is significant at 1% level.

The effect of “community pride” resulted from the sport event over a year on the number of sport event hosted over the coming year is positively significant at 5% level.

The effect of host community's happiness resulted from an event over the year on the number of sport events hosted over the next year is significant at the 1% level.

**Table 3.** Summary of the main results of the panel data regression.

Variables	OLS ( <i>p</i> -value)	Fixed effect ( <i>p</i> -value)	Random effect ( <i>p</i> -value)
Constant	3.187*** (0.000)	2.974*** (0.000)	3.411*** (0.000)
SSPA	0.002*** (0.027)	0.001*** (0.000)	3.111*** (0.000)
COMP	0.020** (0.094)	0.018** (0.093)	0.015** (0.037)
HAP	0.059*** (0.024)	0.063*** (0.011)	0.055*** (0.003)
FGFA	0.002** (0.054)	0.011** (0.005)	0.012** (0.011)
INVCO	0.047** (0.044)	0.035** (0.012)	0.022** (0.015)
COMEX	0.044** (0.014)	0.017** (0.018)	0.055** (0.018)
COMAT	0.066** (0.015)	0.019** (0.036)	0.015** (0.022)
R <sup>2</sup> total		0.008	0.009
R <sup>2</sup> within		0.079	0.064
R <sup>2</sup> between		0.005	0.032
F tests ( <i>p</i> -value)	F (10, 440) = 11.66 (0.0000)	F (10, 411) = 3.54 (0.0002)	
Hausman test ( <i>p</i> -value)		Chi <sup>2</sup> (7) = 3.89 (0.792)	
Breush-Pagan		Chibar 2 (01) = 1153.12 (0.0000)	
		Durbin-Watson = 1.232	
Number of observations	855		855

Notes \*\*\*, \*\* and represent statistic significant level for 1%, 5% and 10%, respectively.

The effect of “feel-good factor”, “involving community”, “community excitement” and “community attachment” measured among host population resulted from an event over a year on the number of sport events hosted over the coming year are significant at the 5% level.

- If  $\alpha_i \neq \alpha$  and  $\beta_i = \beta$  pour  $i \in [1, 31]$ , we obtain the following fixed effects model:

$$\begin{aligned} SEHO_{i,(t+1)} = & \alpha_i + \beta_1 SSPA_{i,t} + \beta_2 COMP_{i,t} + \beta_3 HAP_{i,t} + \beta_4 FGFA_{i,t} \\ & + \beta_5 INVCO_{i,t} + \beta_6 COMEX_{i,t} + \beta_7 COMAT_{i,t} \\ & + \varepsilon_{i,t}, \quad i \in [1, 31] \text{ et } t \in [1, 33] \end{aligned} \quad (2)$$

where:

$\alpha_p$  an individual effect, it is constant across individuals over time but it can be

either fixed or random.

$\beta$ , a vector with two identical parameters for all individuals and all time periods.

## 2) Testing for individual effect in panel data model

In order to check the existence of individual effect, we need to test the following two hypotheses:

$$\begin{cases} H_0 : \alpha_i = 0 \\ H_1 : \alpha_i \neq 0 \end{cases}$$

Under the hypothesis  $H_0$ , we have a common constant for all individuals in the sample; this is the case of the “pooled model”. While under hypothesis  $H_1$ , we have a constant for each individual which confirm a panel data structure.

The test statistic for Fisher’s exact test follow  $F(28, 413) = 28.24$  with  $\text{Prob} > F = 0.0000$ . Subsequently, we reject  $H_0$  and we must include an individual-specific effect in the model.

## 3) Estimation of fixed-effects model

We first consider the case of fixed effects, we have:

$$\text{SEHO}_{i,(t+1)} = \alpha_i + \sum_{k=1}^7 \beta_k X_{k,i,t} + \varepsilon_{i,t}, \quad i \in [1,31] \text{ et } t \in [1,33]$$

This model is studied under the following assumptions:

$$H_1 : \alpha_i \in \mathbb{R}$$

$$H_2 : \beta_k = (\beta_1, \beta_2, \dots, \beta_{33})$$

$$H_3 : \varepsilon_{i,t} = (\varepsilon_{i,1}, \varepsilon_{i,2}, \dots, \varepsilon_{i,33}) \text{ are i.i.d}$$

$$E(\varepsilon_{i,t}) = 0$$

$$V(\varepsilon_{i,t}) = \sigma_\varepsilon^2$$

$$E(\varepsilon_{i,t}, \varepsilon_{j,s}) = 0 \text{ for } i \neq j \text{ and } (t, s)$$

The residuals are assumed to be uncorrelated in the temporal and individual dimensions, regardless of the date considered.

The estimation results are given in **Table 3**: summary of the main result of the panel data regression.

For the fixed-effects model, the most relevant  $R^2$  is the  $R^2$  within because it gives an idea about the intra-individual variability of the dependant variable explained by that of the explanatory variables. In fact, the contribution of the intra-individual variability of “the number of sport events hosted for each individual over the coming year” explained by that of the explanatory variables is 7.92%. The contribution of the individual effects is 0.53%.

The individual effects are statistical significant since the statistic of the significance test of the individual effects ( $F = 28.27$ ) has zero probability. So the Fisher statistic  $F(29, 411) = 28.27$  confirms the heterogeneity of individuals in the form of a fixed effect, since the  $p$ -value  $< 5\%$ .

Thus, we reject the null hypothesis of the joint significance of the explanatory

variables ( $F = 10.411$ ) = 3.54 with a probability  $\text{prob} > F = 0.0002$ .

The estimation results obtained by the fixed-effect model show that the coefficient associated with sport and sport participation over a year is positively correlated with the number of sport events hosted over the coming year. The sport and sport participation variable with a positive coefficient is significant at 1%. Therefore, Hypothesis H-a is confirmed. This result is consistent with result from previous studies (Wicker and Sotiriadou, 2013; Carroll, 2018; Taks, 2013; Chalip et al., 2017) who suggested that when adult sport participation level rise around the time of hosting an event, host community's investments in sporting event rise as well.

Community pride resulting from hosting sport events over a year has a positive significant effect on the number of sport events hosted over the coming year. Consequently hypothesis H-b is true. The research result is consistent with the existing literature (for a review see, Tosun, 2000) suggesting that it is important to foster and stimulate residents' ideological motivation (i.e. community pride) to hosting an event. Therefore, previous research (for a review see, Kim et al., 2015) stated that, the high level of demand for hosting sport event is related to community pride. Hence, community pride is the most important benefit for the host territory, which is able to reduce the negative perceptions related to the event (such as traffic, pollution, etc.).

Likewise, happiness and feel-good factor over a year have a significant positive effect on the number of sport events hosted over the coming year. Hence, H-c and H-d are also confirmed.

The study corroborate previous findings (see, for example., Funk et al., 2011) that residents' happiness with the event contributes to further commitment and an increase of country's investment in hosting future events because hosting sport events resulted in an increase in reported happiness of the host country's residents (Kuper and Szymanski, 2012).

Furthermore, we can state that what drives local residents' support for event hosting is probably dependent on the "feel-good" factor, a carnival-like atmosphere created among spectators (Grix, 2014). This positive feeling is important because it can sustain agendas for social and community action (Hughes, 1999). Governments continue to bid for these competitions. It presents evidence that shows that these sports contests make people happy, and argues that politicians capitalize on this feel-good factor.

The effect of the involving community on the number of sport events hosted seems positively significant at the 5% level. Hypothesis H-e is also true. The research result is consistent with the existing literature (see, Hallmann & Zehrer, 2017) who found that there is a correlation between event involvement and community involvement. Hence, Community involvement has a positive impact on future event volunteer intentions (Bang et al., 2009; Doherty, 2009). High involvement is accompanied by high inner excitement including strong activation, intense thinking and strong emotions, while low involvement is characterized by



low activation, less information processing and weak emotions (Schiffman and Kanuk, 2010). In leisure, highly involved individuals are likely to express more intense attitudes and emotions about their activity (Burkes and Stets, 1999). According to Blackwell (2006) the degree of involvement is the most important factor shaping the decision-making process. Thus, high personal involvement in the event might create a higher impact on intention to recommend and engage again in a similar activity (Bang et al., 2009). Involving communities in the planning process may result in improved event management, such as ongoing community support regarding sport events, increased goodwill to visitors, potentially greater competition to host future events (Auld et al., 2011).

In addition, community excitement over a year has a positive significant effect on the number of sport events hosted over the coming year. The results are similar to Crompton's (2004) and Inoue & Havard's (2014) research works revealed that the community excitement, regardless of size and scope, is one of the important impacts of conducting sporting events.

In addition, community excitement over a year has a significant effect on the number of sport events hosted over the coming year; hence, Hypothesis H-f is also true. The results are different from Crompton (2004), and Inoue and Havard (2014) who stated that the community excitement, regardless of size and scope, is one of the important impacts of conducting sporting events.

It has been found by previous research (see, for example, Kaplanidou et al., 2013) that host community look forward planning more sport events because residents observe some quality of life changes in relation to the event. The result is also contradicted with Misener and Mason, 2010 who stipulated that some scholars have recommended that additional activities, other than the event itself, serve as sources of community excitement and are not necessarily connected to the event itself (Inoue & Havard, 2014; Kim & Walker, 2012; Liu, 2016; Waitt, 2003).

Finally, the effect of community attachment over a year on the number of sport events hosted over the coming year is also positively significant at the 5% level. Hypothesis H-g is also true. The result is similar to preceding research (see, for example, Heere & James, 2007; Liu, 2016; Smith & Ingham, 2003; Gibson et al., 2014; Zagorin et al., 2017; Taks et al., 2015). The author of these studies confirmed that there is a positive association between sport events and community attachment.

#### 4) Estimation of compound error model:

For each individual  $i$  and for each date  $t + 1$ , the theoretical model is written as follows:

$$SEHO_{i,(t+1)} = \mu + \sum_{k=1}^7 \beta_{k,i} X_{k,i,t} + \vartheta_{i,t}, \quad i \in [1, 31] \text{ et } t \in [1, 33]$$

$$\text{With: } \vartheta_{i,t} = \alpha_i + \varepsilon_{i,t}$$

where:

$\alpha_i$ , the individual effect which is no longer a constant parameter to be esti-

mated but an unobservable random variable.

$\varepsilon_{i,t}$  a residual constant that represents the influence of the other omitted variables that vary for the two panel dimensions.

This model is studied under the following assumptions:

H<sub>1</sub>: the temporal autocorrelation is constant, regardless the number of periods separating the two disturbances.

H<sub>2</sub>: absence of correlation between individuals

The estimation results are given in **Table 3**: summary of the main results of the panel data regression.

For the random effect, the most relevant R<sup>2</sup> is the R<sup>2</sup> between, it is the measure of the part of the inter-individual variability of the dependent variable explained by those of the explanatory variables.

Indeed, the part of the variability of “the number of sport events hosted” explained by the explanatory variable is 6.38%. While the contribution of individual effects is 3.48%.

The estimation results obtained by the random-effect model seem similar to the results obtained by the fixed effect model.

The value of theta is 0.8339, it is close to 1, in this case the ordinary least square (OLS) estimator tends towards the estimator of the homogeneous panel data model.

The Hausman test developed in the next section should confirm these presumptions.

Let's apply Hausman specification test to choose the most appropriate model for the data.

### 5) Hausman (1978) specification test

The question that arises at this stage is: which model can we use fixed effects or random effects.

The Wu-Hausman test helps to choose between fixed and random effects models.

The basic idea is that under the null hypothesis, we are dealing with random effects, while under the alternative hypothesis; we are faced with a modeling with fixed effects: it is a question of comparing the variance-covariance matrices of the two estimators:

$$W = (\beta_f - \beta_\alpha)' V(\beta_f - \beta_\alpha)^{-1} (\beta_f - \beta_\alpha)$$

The statistic test follows a one chi-square test with 6 degrees of freedom.

For the “number of sport events hosted” model studied, this statistic is equal to 3.89 with a *p*-value equal to 78.26%. Indeed, the probability of the test is greater than 5% which implies that the random effect model is more appropriate than the fixed-effect model.

We therefore accept the null hypothesis and the user adopts the OLS estimator for this model of “the number of sport events hosted”, which is efficient if there is no correlation between the errors and the explanatory variables. Thus,

under the null hypothesis we must have the same value for the coefficients.

However, for this study we have, “SSPA ( $-0.001_b$ ,  $-0.001_a$ ), COMP ( $-0.01_b$ ,  $-0.01_a$ ), HAP ( $-0.06_b$ ,  $-0.05_a$ ), FGFA ( $0.00_b$ ,  $0.00_a$ ), INCO ( $-0.01_b$ ,  $-0.02_a$ ), COMEX ( $-0.00_b$ ,  $-0.00_a$ ), COMAT ( $-0.001_b$ ,  $-0.001_a$ )”, which confirms the lack of correlation between the individual effects and the explanatory variables.

It is worth noting that, the modeling with a fixed effect is more general than that with a random effect, since it does not impose a structure on the individual effects, such as the case of the random effects which poses the hypothesis of correlation between the individual effects and regressors.

Thus, it is costly because it generates a loss of degree of freedom (we lose  $(N-1)$  degree of freedom in inclusion  $N$  variables minus the general intercept) which gives less efficient estimators for the coefficients of the explanatory variable.

Since, the within estimator for a fixed-effect model considers that the coefficients of the explanatory variables do not change over time for the same individual, we can therefore find ourselves in front of an individual-specific random effect model.

#### 6) Breusch and Pagan's (1980) test

In order to test the absence of random effect, we use a Lagrange multiplier test.

It is Breusch and Pagan's (1980) test which is used to test the two following hypotheses.

$$\begin{cases} H_0 : \sigma_{\mu}^2 = 0 \\ H_1 : \sigma_{\mu}^2 \neq 0 \end{cases}$$

where,  $\sigma_{\mu}^2$  denotes the variance of the individual-specific error,  $\mu_i \rightarrow N(0, \sigma_{\mu}^2)$

The test statistic follows a chi-square distribution with degree of freedom equal to 1, with a value 1153.12 and a null hypothesis.

Indeed, the probability of the Breusch-Pagan test shows that the random effects are globally significant at the threshold of 10%. So, we accept the alternative hypothesis and we adopt the GLS estimator.

#### 7) Wooldridge test for autocorrelation:

In order to be able to use the GLS estimator, some hypotheses are very restrictive (hypothesis of homoscedasticity and absence of correlation).

As regard to correlation, it means that error terms are auto-correlated for the same individual in different periods.

Testing within-individual auto-correlation at the panel model data:

$$E(e_{it}, e_{is}) \neq 0 \text{ avec } t \neq s$$

The null hypothesis to be tested refers to the absence of first-order auto correlation AR (1) using the Wooldridge's test such that:

$$H_0 : \rho = 0$$

The result of applying this test shows that the value of DW statistic is close to two (Durbin-Watson = 1.232).

---

So, we accept the null hypothesis of auto correlation of errors.

#### 4. Conclusion

Erich Honecker, the first secretary of East Germany's Socialist Unity Party of Germany stated that sport is not an end in itself; it is the means to achieve other ends. The quotation is indeed a symbol of this political attachment to the use of sport as support for the purpose of governments. This study was an attempt towards this direction. The purpose of the current study was to examine the relationship between social impact of small and medium sport events perceived by host community and their attempt to win to bid to host future sporting events. The current study was developed into three parts. The first involved the definition and dimensions of the social impact of hosting sporting events based on the existing literature, the second present the development of hypotheses. The third is an empirical validation. In other words, development in panel data econometrics to show the relationship between the social impact's dimensions perceived by host population over a year and the number of sport events hosted by the country over the coming year.

First, we present data then our study carried out by static panel data, our statistical tests let to accept the random effect modeling of the linear relationship between the social impact dimensions and the number of future sport events hosted. In fact, sport and sport participation over a year had a positive and significant effect on the number of sport events hosted over the coming year. Furthermore, the effect of "community pride" over a year for a host country on the number of sport events hosted over the coming year is statistically significant. The effect of residents' happiness over a year on the number of sport events hosted over the next year is also significant. The effect of "feel-good factor", "involving community", "community attachment" measured among target host population over a year on the number of sport events hosted over the coming year are also significant. Linear modeling allows heterogeneity to be taken into account in panel data, but it also constitutes a major limit since the linear formulation restricts the type of possible dynamics. This calls for taking into account the non linearity for the panel data.

#### 5. Theoretical and Practical Implications

These findings have a number of implications.

First, small and medium-scale events which may be hosted in a larger number of countries/cities, are going to generate more benefits at the aggregated level to more host communities, and thus to contribute a higher net benefit than the less-often organized mega-events.

Second, this study confirms that hosting small and medium sport event not only generate social benefits for host communities but also their perceived impact would predict their attitude toward future bidding for other sports events.

Third, the current study is the first gathering [Hover et al.'s \(2016\)](#) factors for

measuring the perceived social impacts of host population in one study.

Forth, the current study identifying the linkage between the host population perceptions of the event's social impact and their intentions toward bidding for, and then hosting future sports events. This is an important result for the literature on the social impact of sport events because there is currently a lack of discourse about why events and their sponsors need to make efforts to generate intangible benefits for host communities.

Five, this study provided insights regarding intangible impacts as a result of small and medium sport events, such as community pride, sports participation, happiness. Contrasting to the characteristics of small and medium scale events that are often held in a short period of time and require fewer investments for the organization compared to mega or large-scale events, the impacts of these events may be felt over short to longer periods of time.

Fifth, in many cases, these events provide benefits that prevail over the costs. They can bring about changes in behaviour and ways of living and may have long lasting impacts such as promoting a healthy lifestyle, providing better knowledge, improved the quality of living, creating a novel community tradition, or generating new careers and business opportunities. It is important to note that unlike tangible impacts, especially the economic and tourism related returns, intangible impacts which cannot be quantified, should not be neglected.

Sixth, based on the findings of this study, host population of small and medium scale sporting events and events owners should pay special attention to intangible benefits rather than just focusing on economic benefits to maximize the positive impact of hosting these events. As the social impact could be enormous and last long after the event, it is important in itself as a strong indicator affected the position of country to bid to host future event.

Finally, small and medium sport events are more common than large events (Taks, 2013), making them more realistic to host and less burdensome on the local population. Importantly, these events require less capital since they use existing infrastructure, consist mainly of volunteer labor, and are locally controlled (Gursoy et al., 2004). Although the media coverage of such events is not comparable to major events, small and medium sport events provide ample and tacit opportunities for athletes and visitors to interact with local community resulting in greater local leveraging and event immersion.

## **6. Limitations and Future Research Suggestions**

While the current study makes a substantial contribution to the body of literature on the social impact of sport events, there are some limitations that must be noted.

First, small and medium sport events can be hosted by smaller urban centers that have no chance to organize the biggest events (Taks et al., 2015) but they seem to be less functional in terms of the social impact, therefore, the results herein may not be generalized to other events and populations.

Second, future research should continue to explore the relationship between sport events and the social intangible impact for a greater variety of events, both non-mega and mega-events like the Olympic Games and the FIFA World Cup.

Third, notwithstanding scope and generalizability concerns, we note that sport events impose benefits on individuals in host communities, and these effects occur in the form of positive and negative consequences for host communities. Accordingly, this study only reported the positive effects, while researchers should also examine the negative effect of small and medium sport events.

The fourth limitation of this research is the use of a convenience sample (countries whose informations are available in the world sport events Database) and the lack of generalization of the findings more host cities/countries of small and medium sports events from different economic and cultural contexts should be analyzed to allow for universalization of the results.

### Acknowledgements

This paper forms part of a master dissertation research being undertaken at the University of Sousse (Tunisia).

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

### References

- Auld, C. J., Lloyd, K. M., & Rieck, J. (2011). Perceptions of the Impacts of Major Commercial Sport Events. In H. Dolles, & S. Söderman (Eds.), *Sport as a Business* (pp. 75-98). Palgrave Macmillan. [https://doi.org/10.1057/9780230306639\\_5](https://doi.org/10.1057/9780230306639_5)
- Balduck, A. L., Maes, M., & Buelens, M. (2011). The Social Impact of the Tour de France: Comparisons of Residents Pre- and Post-Event Perceptions. *European Sport Management Quarterly*, 11, 91-113. <https://doi.org/10.1080/16184742.2011.559134>
- Bang, H., Won, D., & Kim, Y. (2009). Motivations, Commitment, and Intentions to Continue Volunteering for Sporting Events. *Event Management*, 13, 69-81. <https://doi.org/10.3727/152599509789686317>
- Blackwell, R. J. (2006). *Consumer Behaviour* (10<sup>th</sup> ed.). Harcourt College Publishers.
- Borgmann, A. (1992). *Crossing the Postmodern Divide* (pp. 138-143). University of Chicago Press. <https://doi.org/10.7208/chicago/9780226161488.001.0001>
- Bowdin, G., Allen, J., O'Toole, W., Harris, R., & McDonnell, I. (2006). *Events Management* (2nd ed.). Elsevier. <https://doi.org/10.4324/9780080457154>
- Bramwell, B. (1997). Strategic Planning before and after a Mega-Event. *Tourism Management*, 18, 167-176. [https://doi.org/10.1016/S0261-5177\(96\)00118-5](https://doi.org/10.1016/S0261-5177(96)00118-5)
- Breedveld, K., Hover, P., Pulles, I., Romijn, D., Verhagen, S., Smits, F., Dijk, B., & van Eekeren, F. (2014). *European Youth Olympic Festival. Olympisch sportfeest onder de Dom. Onderzoek EYOF Utrecht 2013. Overall rapportage*. Mulier Instituut/Hogeschool Utrecht/Universiteit Utrecht.
- Breusch, T. S., & Pagan, A. R. (1980). The Lagrange Multiplier Test and Its Application to Model Specification in Econometrics. *Review of Economic Studies*, 47, 239-253.

- <https://doi.org/10.2307/2297111>
- Bull, A. C., & Jones, B. (2006). Governance and Social Capital in Urban Regeneration: A Comparison between Bristol and Naples. *Urban Studies*, 43, 767-786.  
<https://doi.org/10.1080/00420980600597558>
- Burke, P. J., & Stets, J. E. (1999). Trust and Commitment through Self-Verification. *Social Psychology Quarterly*, 62, 347-366. <https://doi.org/10.2307/2695833>
- Carroll, M. (2018). *Address to the National Press Club, Canberra, 24 October 2018*. Australian Olympic Committee.
- Chalip, L. (2006). Towards Social Leverage of Sport Events. *Journal of Sport & Tourism*, 11, 109-127. <https://doi.org/10.1080/14775080601155126>
- Chalip, L., Green, B. C., Taks, M., & Misener, L. (2017). Creating Sport Participation from Sport 3 Events: Making It Happen. *International Journal of Sport Policy and Politics*, 9, 257-276. <https://doi.org/10.1080/19406940.2016.1257496>
- Cornelissen, S. (2008). Scripting the Nation: Sport, Mega-Events, Foreign Policy and State-Building in Post-Apartheid South Africa. *Sport in Society*, 11, 481-493.  
<https://doi.org/10.1080/17430430802019458>
- Cornelissen, S., & Maennig, W. (2010). On the Political Economy of “Feel-Good” Effects at Sport Mega-Events: Experiences from FIFA Germany 2006 and Prospects for South Africa 2010. *Alternation*, 17, 96-120.
- Crompton, J. L. (2001). Public Subsidies to Professional Team Sport Facilities in the USA. In C. Gratton, & I. P. Henry (Eds.), *Sport in the City: The Role of Sport in Economic and Social Regeneration* (pp. 35-45). Routledge.
- Crompton, J. L. (2004). Beyond Economic Impact: An Alternative Rationale for the Public Subsidy of Major League Sports Facilities. *Journal of Sport Management*, 18, 40-58.  
<https://doi.org/10.1123/jsm.18.1.40>
- Doherty, A. (2009). The Volunteer Legacy of a Major Sport Event. *Journal of Policy Research in Tourism, Leisure and Events*, 1, 185-207.  
<https://doi.org/10.1080/19407960903204356>
- Dolan, P., Kavetsos, G., Krekel, C., Mavridis, D., Metcalfe, R. D., Senik, C., & Ziebarth, N. R. (2016). *The Host with the Most? The Effects of the Olympic Games on Happiness*. CEP Discussion Papers dp1441, Centre for Economic Performance, LSE.  
<https://doi.org/10.2139/ssrn.2818834>
- Dwyer, L., Mellor, R., Mistilis, N., & Mules, T. (2000). A Framework for Assessing “Tangible” and “Intangible” Impacts of Events and Conventions. *Event Management*, 6, 175-189. <https://doi.org/10.3727/096020197390257>
- Elling, A., Hilvoorde, I. V., & Den Dool, V. R. (2014). Creating or Awakening National Pride through Sporting Success: A Longitudinal Study on Macro Effects in the Netherlands. *International Review for the Sociology of Sport*, 49, 129-151.  
<https://doi.org/10.1177/1012690212455961>
- Fredline, L. (2004). Host Community Reactions to Motorsport Events: The Perception of Impact on Quality of Life. In B. W. Ritchie, & D. Adair (Eds.), *Sport Tourism: Interrelationships, Impacts and Issues* (pp. 155-173). Channel View.  
<https://doi.org/10.21832/9781873150672-010>
- Funk, D., Jordan, J., Ridinger, L., & Kaplanidou, K. (2011). Capacity of Mass Participant Sport Events for the Development of Activity Commitment and Future Exercise Intention. *Leisure Sciences*, 33, 250-268. <https://doi.org/10.1080/01490400.2011.564926>
- Gibson, H. J., Kaplanidou, K., & Kang, S. J. (2012). Small-Scale Event Sport Tourism: A Case Study in Sustainable Tourism. *Sport Management Review*, 15, 160-170.

<https://doi.org/10.1016/j.smr.2011.08.013>

- Gibson, H. J., Walker, M., Thapa, B., Kaplanidou, K., Geldenhuys, S., & Coetzee, W. (2014). Psychic Income and Social Capital among Host Nation Residents: A Pre-Post Analysis of the 2010 FIFA World Cup in South Africa. *Tourism Management*, *44*, 113-122. <https://doi.org/10.1016/j.tourman.2013.12.013>
- Gratton, C., Dobson, N., & Shibli, S. (2001). The Role of Major Sports Events in the Economic Regeneration of Cities. In C. Gratton, & I. Henry (Eds.), *Sport in the City: The Role of Sport in Economic and Social Regeneration* (pp 35-40). Routledge.
- Gratton, C., Shibli, S., & Coleman, R. (2005). Sport and Economic Regeneration in Cities. *Urban Studies*, *42*, 985-999. <https://doi.org/10.1080/00420980500107045>
- Green, B. C. (2001). Leveraging Subculture and Identity to Promote Sport Events. *Sport Management Review*, *4*, 1-19. [https://doi.org/10.1016/S1441-3523\(01\)70067-8](https://doi.org/10.1016/S1441-3523(01)70067-8)
- Grix, J. (2014). The Attraction of Sport Mega-Events to States of All Political Hues. In W. Hofmeister (Ed.), *More than a Game: Sports, Society and Politics* (pp. 17-22). Konrad-Adenauer-Stiftung.
- Gursoy, D., Chi, C. G., Ai, J., & Chen, B. T. (2011). Temporal Change in Resident Perceptions of a Mega-Event: The Beijing 2008 Olympic Games. *Tourism Geographies*, *13*, 299-324. <https://doi.org/10.1080/14616688.2010.529935>
- Gursoy, D., Kim, K., & Uysal, M. (2004). Perceived Impacts of Festivals and Special Events by Organizers: An Extension and Validation. *Tourism Management*, *25*, 171-181. [https://doi.org/10.1016/s0261-5177\(03\)00092-x](https://doi.org/10.1016/s0261-5177(03)00092-x)
- Hallmann, K., & Zehrer, A. (2017). Event and Community Involvement of Sport Event Volunteers. *International Journal of Event and Festival Management*, *8*, 308-323. <https://doi.org/10.1108/IJEFM-08-2016-0058>
- Hallmann, K., Breuer, C., & Kühnreich, B. (2013). Happiness, Pride and Elite Sporting Success: What Population Segments Gain Most from National Athletic Achievements? *Sport Management Review*, *16*, 226-235. <https://doi.org/10.1016/j.smr.2012.07.001>
- Hausman, J. A. (1978). Specification Tests in Econometrics. *Econometrica*, *46*, 1251-1272. <https://doi.org/10.2307/1913827>
- Heere, B., & James, J. D. (2007). Stepping Outside the Lines: Developing a Multi-Dimensional Team Identity Scale Based on Social Identity Theory. *Sport Management Review*, *10*, 65-91. [https://doi.org/10.1016/S1441-3523\(07\)70004-9](https://doi.org/10.1016/S1441-3523(07)70004-9)
- Heere, B., Walker, M., Gibson, H., Thapa, B., Geldenhuys, S., & Coetzee, W. (2013). The Power of Sport to Unite a Nation: The Social Value of the 2010 FIFA World Cup in South Africa. *European Sport Management Quarterly*, *14*, 450-471. <https://doi.org/10.1080/16184742.2013.809136>
- Heuvel Van Den, M. (2014). *Brabants Dagblad Tilburg Ten Miles Economische en sociale impact, bezoekers-en deelnemersprofiel*. Fontys Economische Hogeschool Tilburg/SPECO.
- Hover, P., & Romijn, D. (2012). *Factsheet Sport evenementen. Katalysator voor participatie en cohesie?* Mulier Instituut.
- Hover, P., Dijk, B., Breedveld, K., van Eekeren, F., & Breedveld, K. (2016). *Creating Social Impact with Sport Events*. Mulier Institute & Utrecht University.
- Hughes, G. (1999). Urban Revitalization: The Use of Festive Time Strategies. *Leisure Studies*, *18*, 119-135. <https://doi.org/10.1080/026143699374998>
- Hummon, D. M. (1992). Community Attachment. In I. Altman, & S. M. Low (Eds.), *Place Attachment: Human Behavior and Environment* (pp. 253-278). Springer. [https://doi.org/10.1007/978-1-4684-8753-4\\_12](https://doi.org/10.1007/978-1-4684-8753-4_12)



- Inoue, Y., & Havard, C. T. (2014). Determinants and Consequences of the Perceived Social Impact of a Sport Event. *Journal of Sport Management*, 28, 295-310. <https://doi.org/10.1123/jsm.2013-0136>
- Jenson, J. (1998). *Mapping Social Cohesion*. Canadian Policy Research Networks, Ottawa  
Jones, Robert Alun.
- Jenssen, J. I., & Koenig, H. F. (2002). The Effect of Social Networks on Resource Access and Business Start-Ups. *European Planning Studies*, 18, 1039-1046. <https://doi.org/10.1080/0965431022000031301>
- Kaplanidou, K., Karadakis, K., Gibson, H., Thapa, B., Walker, M., Geldenhuys, S., & Coetzee, W. (2013). Quality of Life, Event Impacts, and Mega-Event Support among South African Residents before and after the 2010 FIFA World Cup. *Journal of Travel Research*, 52, 631-645. <https://doi.org/10.1177/0047287513478501>
- Kavetsos, G. (2012). National Pride: War minus the Shooting. *Social Indicators Research*, 106, 173-185. <https://doi.org/10.1007/s11205-011-9801-1>
- Kavetsos, G., & Szymanski, K. (2008). Olympic Games, Terrorism and Their Impact on the London and Paris Stock Exchanges. *Revue d'économie politique*, 118, 189-206. <https://doi.org/10.3917/redp.182.0189>
- Kavetsos, G., & Szymanski, S. (2010). National Well-Being and International Sports Events. *Journal of Economic Psychology*, 31, 158-171. <https://doi.org/10.1016/j.joep.2009.11.005>
- Kellett, P., Hede, A.-M., & Chalip, L. (2008). Social Policy for Sport Events: Leveraging (Relationships with) Teams from other Nations for Community Benefit. *European Sport Management Quarterly*, 8, 101-121. <https://doi.org/10.1080/16184740802024344>
- Kim, S. S., & Petrick, J. F. (2005). Residents Perceptions on Impacts of the FIFA 2002 World Cup: The Case of Seoul as Host City. *Tourism Management*, 26, 25-38. <https://doi.org/10.1016/j.tourman.2003.09.013>
- Kim, W., & Walker, M. (2012). Measuring the Social Impacts Associated with Super Bowl XLIII: Preliminary Development of a Psychic Income Scale. *Sport Management Review*, 15, 91-108. <https://doi.org/10.1016/j.smr.2011.05.007>
- Kim, W., Mun, H., Walker, M., & Drane, D. (2015). Evaluating the Perceived Social Impacts for Hosting Large-Scale Sport Tourism Events: Scale Development and Validation. *Tourism Management*, 48, 21-32. <https://doi.org/10.1016/j.tourman.2014.10.015>
- Kuper, S., & Szymanski, S. (2012). *Soccernomics*. Nation Books.
- Legacy Trust UK (2013). *Research Findings: Young People and London 2012*. Legacy Trust UK.
- Liu, D. (2016). Social Impact of Major Sports Events Perceived by Host Community. *International Journal of Sports Marketing and Sponsorship*, 17, 78-91. <https://doi.org/10.1108/IJSMS-02-2016-005>
- Liu, D., & Gratton, C. (2010). The Impact of Mega Sporting Events on Live Spectators' Images of a Host City: A Case Study of the Shanghai F1 Grand Prix. *Tourism Economics*, 16, 629-645. <https://doi.org/10.5367/000000010792278347>
- Maennig, W., & Porsche, M. (2008). The Feel-Good Effect at Mega Sports Events. Recommendations for Public and Private Administration Informed by the Experience of the FIFA World Cup 2006. *Hamburg Contemporary Economic Discussions*, 18, 1-27. <https://doi.org/10.2139/ssrn.1541952>
- Mannell, R. C., & Snelgrove, R. (2011). Leisure and the Psychological Well-Being and Health of Older Adults. In H. Gibson, & J. Singleton (Eds.), *Leisure, Aging and Well-being* (pp. 143-157). Human Kinetics. <https://doi.org/10.5040/9781492595588.ch-008>

- Minnaert, L. (2012). An Olympic Legacy for All? The Non Infrastructural Outcomes of the Olympic Games for Socially Excluded Groups (Atlanta 1996-Beijing 2008). *Tourism Management*, 33, 361-370. <https://doi.org/10.1016/j.tourman.2011.04.005>
- Misener, L. (2015). Leveraging Parasport Events for Community Participation: Development of a Theoretical Framework. *European Sport Management Quarterly*, 15, 132-153. <https://doi.org/10.1080/16184742.2014.997773>
- Misener, L., & Mason, D. S. (2010). Towards a Community Centred Approach to Corporate Community Involvement in the Sporting Events Agenda. *Journal of Management & Organization*, 16, 495-514. <https://doi.org/10.1017/S1833367200001899>
- Misener, L., & Mason, D. S. (2006). Creating Community Networks: Can Sporting Events Offer Meaningful Sources of Social Capital? *Managing Leisure*, 11, 39-56. <https://doi.org/10.1080/13606710500445676>
- Mourato, S., Atkinson, G., Ozdemiroglu, E., Johns, H., Newcombe, J., Provins, A. et al. (2005). *Olympic Games Impact Study—Stated Preference Analysis (Final Report)*. EFTEC.
- Ohmann, S., Jones, I., & Wilkes, K. (2006). The Perceived Social Impacts of the 2006 Football World Cup on Munich Residents. *Journal of Sport and Tourism*, 11, 129-152. <https://doi.org/10.1080/14775080601155167>
- Perks, T. (2015). Exploring an Olympic “Legacy”: Sport Participation in Canada before and after the 2010 Vancouver Winter Olympics. *Canadian Review of Sociology*, 52, 462-474. <https://doi.org/10.1111/cars.12087>
- Poortinga, W. (2006). Social Relations or Social Capital? Individual and Community Health Effects of Bonding Social Capital. *Social Science & Medicine*, 63, 255-270. <https://doi.org/10.1016/j.socscimed.2005.11.039>
- Porter, P., & Chin, D. (2012). Economic Impact of Sports Events. In A. Zimbalist, & W. Maennig (Eds.), *International Handbook on the Economics of Mega Sporting Events* (pp. 246-264). Edward Elgar Publishing.
- Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24, 1-24. <https://doi.org/10.1146/annurev.soc.24.1.1>
- Preuss, H. (2004). *The Economics of Staging the Olympics. A Comparison of the Games 1972-2008*. Edward Elgar. <https://doi.org/10.4337/9781781008690>
- Preuss, H. (2015). A Framework for Identifying the Legacies of a Mega Sport Event. *Leisure Studies*, 34, 643-664. <https://doi.org/10.1080/02614367.2014.994552>
- Reis, A. C., de Sousa-Mast, F. R., & Gurgel, L. A. (2013). Rio 2016 and the Sport Participation Legacies. *Leisure Studies*, 33, 437-453. <https://doi.org/10.1080/02614367.2012.758304>
- Ribeiro, T., Correia, A., & Biscaia, R. (2021). The Social Impact of the 2016 Rio Olympic Games: Comparison of Residents’ Pre- and Post-Event Perceptions. *Sports, Business and Management*, 11, 201-221. <https://doi.org/10.1108/SBM-02-2020-0014>
- Ritchie, B. W., Shipway, R., & Cleeve, B. (2009). Resident Attitudes towards Mega-Sporting Events: A Non-Host City Perspective of the 2012 London Olympic Games. *Journal of Sport & Tourism*, 14, 143-167. <https://doi.org/10.1080/14775080902965108>
- Ritchie, J. B. R. (1984). Assessing the Impact of Hallmark Events: Conceptual and Research Issues. *Journal of Travel Research* 23, 2-11. <https://doi.org/10.1177/004728758402300101>
- Schiffman, L., & Kanuk, L. L. (2010). *Consumer Behavior* (10th ed.). Pearson Education, Inc.
- Schulenkorf, N., & Edwards, D. (2012). Maximizing Positive Social Impacts: Strategies for

- Sustaining and Leveraging the Benefits of Intercommunity Sport Events in Divided Societies. *Journal of Sport Management*, 26, 379-390. <https://doi.org/10.1123/jsm.26.5.379>
- Shipway, R., & Jones, I. (2007). Running away from Home: Understanding Visitor Experiences in Sport Tourism. *International Journal of Tourism Research*, 9, 373-383. <https://doi.org/10.1002/jtr.641>
- Slender, H., & Molenaar, J. (2015). *Cascaderun Hoogeveen. Onderzoek Sociaal-Maatschappelijke Impact*. Hanzehogeschool Groningen.
- Smith, J. M., & Ingham, A. G. (2003). On the Waterfront: Retrospectives on the Relationship between Sport and Communities. *Sociology of Sport Journal*, 20, 252-274. <https://doi.org/10.1123/ssj.20.3.252>
- Snelgrove, R., Taks, M., Chalip, L., & Green, B. C. (2008). How Visitors and Locals at a Sport Event Differ in Motives and Identity. *Journal of Sport & Tourism*, 13, 165-180. <https://doi.org/10.1080/14775080802310215>
- Swart, K., Bob, U., Knott, B., & Salie, M. (2011). A Sport and Sociocultural Legacy beyond 2010: A Case Study of the Football Foundation of South Africa. *Development Southern Africa*, 28, 415-428. <https://doi.org/10.1080/0376835X.2011.595997>
- Taks, M. (2013). Social Sustainability of Non-Mega Sport Events in a Global World. *European Journal for Sport and Society*, 10, 121-141. <https://doi.org/10.1080/16138171.2013.11687915>
- Taks, M., Chalip, L., & Green, B. C. (2015). Impacts and Strategic Outcomes from Non-Mega Sport Events for Local Communities. *European Sport Management Quarterly*, 15, 1-6. <https://doi.org/10.1080/16184742.2014.995116>
- Theodorakis, N. D., Kaplanidou, K., & Karabaxoglou, I. (2015). Effect of Event Service Quality and Satisfaction on Happiness among Runners of a Recurring Sport Event. *Leisure Sciences: An Interdisciplinary Journal*, 37, 87-107. <https://doi.org/10.1080/01490400.2014.938846>
- Tosun, C. (2000). Limits to Community Participation in the Tourism Development Process in Developing Countries. *Tourism Management*, 21, 613-633. [https://doi.org/10.1016/S0261-5177\(00\)00009-1](https://doi.org/10.1016/S0261-5177(00)00009-1)
- University of East-London (2015). *Olympic Games Impact Study-London 2012*. Post Games Report. University of East-London.
- Van Bottenburg, M. (2009). *Easy to See, Hard to Prove. De maatschappelijke betekenis van Sport*. Hogeschool Den Haag.
- Van Bottenburg, M., Dijk, B., Hover, P., Bakker, S., Smits, F., & Slender, H. (2016). *Evaluatie Le Grand Départ Utrecht 2015*. Universiteit Utrecht.
- Waitt, G. (2003). Social Impacts of the Sydney Olympics. *Annals of Tourism Research*, 30, 194-215. [https://doi.org/10.1016/S0160-7383\(02\)00050-6](https://doi.org/10.1016/S0160-7383(02)00050-6)
- Weed, M. (2009). *The Potential of the Demonstration Effect to Grow and Sustain Participation in Sport*. Review Paper for Sport England, Canterbury Christ Church University: Centre for Sport, Physical Education & Activity Research (SPEAR).
- Wicker, P., & Sotiriadou, P. (2013). The Trickle-Down Effect: What Population Groups Benefit from Hosting Major Sport Events. *International Journal of Event Management Research*, 8, 25-41.
- Wicker, P., Hallmann, K., Breuer, C., & Feiler, S. (2012). The Value of Olympic Success and the Intangible Effects of Sport Events—A Contingent Valuation Approach in Germany. *European Sport Management Quarterly*, 12, 337-355. <https://doi.org/10.1080/16184742.2012.693117>
- Wood, E. H. (2006). Measuring the Social Impacts of Local Authority Events: A Pilot

Study for a Civic Pride Scale. *International Journal of Nonprofit and Voluntary Sector*, 11, 165-179. <https://doi.org/10.1002/nvsm.21>

Zagorin, L. J., Popp, N., & Sawyer, K. (2017). *Beyond Economic Impact: The Psychic Income Received by the Chapel Hill Community from Carolina Athletics*. Unpublished Master Thesis, University of North Carolina at Chapel Hill Graduate School.

Zhou, R., Kaplanidou, K., Papadimitriou, D., Theodorakis, N. D., & Alexandris, K. (2018). Understanding the Inspiration among Active Participants in Sport Events. *International Journal of Event and Festival Management*, 9, 332-348. <https://doi.org/10.1108/IJEFM-12-2017-0077>