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The Expected Social Impact of the Winter Olympic Games and the Attitudes of Non-host Residents Towards Bidding: the Beijing 2022 Bid Case Study

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Abstract

- Purpose – Using Beijing’s bid for the 2022 Winter Olympic Games as an example, this study seeks to explore the expected social impact of mega-sporting events, as perceived by non-host city residents, and the way in which this perception affects attitudes towards bidding.
- Design/methodology/approach – An empirical survey study was conducted in which data was collected from residents in Shanghai, comprising a sample of 483 respondents. An Exploratory Factor Analysis (EFA) identified 40 items loaded on 8 distinctive factors that underlie the expected social impact of the 2022 Winter Olympic Games. A multiple regression analysis was conducted to determine the effect of the perceived impact on residents’ attitudes towards the bid to host the Olympics.
- Findings – Among the 8 identified impact factors, six were found to be positive and two negative. While all factors were significantly higher above the point of indifference, perceived positive impact factors tended to outweigh those that were negative. In addition, seven out of the 8 factors were found to be significantly predictive of support for Beijing’s bidding: while the effect of “tourism and environment”, “social capital and psychic income”, “international cooperation and exchange”, “infrastructure”, “national image”, and “sport development” was positive, the effect of the “higher living cost” factor was negative with regard to the support of the bidding. This study seeks to contribute by taking a non-host community perspective.
- Originality/value – A growing body of literature has documented perspectives on events and their specific timing during event cycles, i.e., during the bidding stage. In addition, it also offers insight into the perception and attitudes of citizens from emerging markets towards event bidding and hosting, both of which play an increasingly important role in global sports but, on the whole, remain relatively under researched.

Key-words: Mega-sporting events, social impact, Winter Olympic Games, non-host residents’ perceptions

The Expected Social Impact of the Winter Olympic Games and the Attitudes of Non-host Residents Towards Bidding: the Beijing 2022 Bidding Case Study

Over the last 30 years, the effects of hallmark sporting events have represented a major field of research in the sports management literature. In addition to the globalization of sports competitions, academics throughout the world are studying the different effects of mega-sporting events on local communities (i.e., all the individuals who are affected).

According to Getz (2012), “mega” refers to “high levels of tourism, media coverage, prestige or economic impact for their host community”. Therefore, Gratton, Shibli, and Coleman (2006) suggested four main perspectives: economic impact (Maening & Zimbalist, 2012; Preuss & Alfs, 2011; Thibault, 2009); sports development; media and sponsor evaluation (Meenaghan, 2001); and place marketing effects (Ritchie & Smith, 1991; Westerbeek & Linley, 2012). Frey, Iraldo, and Melis (2007) distinguished between physical, economic, environmental, social, cultural and political impacts (Cornelissen & Swart, 2006; Emery, 2002; Schnitzer, 2011). Brown and Massey (2001) and Taks, Chalip and, Green (2015) all suggested that the major impacts of sporting events are social, economic, urban and tourist-related. This categorization is very similar to that put forward by Ritchie (1984). Marivoet (2006) also considered that one should pay attention to the impact of sporting events on cultural norms and values. These different impacts relate to the reasons why cities bid against each other to host major sporting events and why these events become a part of city branding plans.

This paper is focused on the social impact of mega-sporting events , a topic that has become one of the major centers of interest for academics, event organizers and local governing

bodies involved in bidding for international sporting competitions. Academic studies have become more focused on the social impacts of sporting events for two main reasons. First, in the past, the positive economic impact of regular mega-sporting events was overestimated; thus, for several years now, stakeholders have paid more attention to their social impact, even though this is less tangible and more difficult to measure.

Second, some reports have mentioned that social sustainability has not been part of the aims of the Olympics for some time. Nonetheless, over the years, the social impact of mega-sporting events has grown to become a major focus, especially for the IOC, as the number of candidate cities that apply for hosting the Olympics has decreased slightly: nine candidate cities bid for the 2012 Summer Olympic Games, seven for the 2016 Summer Olympics, five for the 2020 Summer Olympics, and four for the 2024 Summer Olympics. The situation and prospects for the Winter Olympic Games are even more serious, with only three candidate cities bidding for the 2014 Winter Olympic Games, five for the 2018 Winter Olympic Games and two for the 2022 Winter Olympic Games. Consequently, in order to make the Olympics more attractive and to encourage cities to bid to become hosts it is imperative to assess the sustainable outcomes (Chalip, 2006; Taks, Chalip, Green, Kesenne, and Martyn, 2009) of this kind of competition. This includes making an assessment of the social impact which, according to Taks et al. (2015), can refer to a “non-monetary perspective such as social life, urban regeneration, sport participation, environmental stewardship or infrastructure”. Heere, Walker, Gibson, Thapa, Geldenhuys, and Coetzee (2013) regarded the unifying power of the Olympic Games as being one social outcome of mega-sporting events .

As a result, the aim of this paper is to deepen our understanding of the social impact of such events on (non-) local populations or (non-) host-city residents and the criteria that influence the direction, type and importance of the effect (e.g. kind of sporting events, duration, type of city/country impacted). The importance of inclusion of non-host perceptions in impact studies

of mega-sporting events such as Olympics has been widely acknowledged as these events are often a national cause (Deccio and Baloglu, 2002; Karadakis and Kaplanidou, 2012; Liu, Broom & Wilson, 2014). In the case of China, hosting of mega-events of Olympic scale is always portrayed as something of national significance involving nation-wide mobilizing, which is expected to unite the people and benefit the whole country. It would be interesting to see to what extent citizens in China would agree with the mega-narrative orchestrated by the central government.

While some authors argue that mega-sporting events have the potential to engender a sense of belonging, boosting the feel good factor and civic pride (Kim, Gursoy, & Lee, 2006) and generating a positive influence on the attitudes of residents (Liu, 2016), resident's perception are mixed when it comes to impacts on hosting major sporting events. For this reason, several studies have aimed to assess residents' perceptions of sporting events in local communities, especially in terms of social impact (Andereck & Vogt, 2000; Balbuck, Maes, & Buelens, 2011; Fredline & Faulkner, 2000; Kim, Jun, Walker & Drane, 2015; Hritz & Ross, 2010; Ap, 1992; Liu, 2016).

In recent years, competition to stage the Olympics has diminished in line with growing concerns about rising costs and public spending (Chappelet, 2013; Liu, Broom & Wilson, 2014). The Winter Olympic Games have become even more controversial, with Russia spending a record high of 50 billion US dollars to host the Sochi Games. During the bidding process for the 2022 Winter Games, after Oslo's withdrawal due to opposition from the public and the ruling party, Beijing and Almaty in Kazakhstan became the only two cities left vying to host the 2022 Games. Potential bids from Switzerland and Germany were also abandoned when voters said no in referendums. Despite the wide use of referendums and the increasingly important role played by the public during the bidding process, little research has been done to understand how Olympic bidding is perceived by residents.

The originality of this paper lies in its aim to study the perceived expected social impact of a non-host city community in a given country during the bidding process and to determine how perceptions may affect attitudes towards the bid. In addition, in the current study Shanghai has been chosen as the non-host city which has long been talking about building itself into an event capital (Liu, 2016). The fact that Shanghai and Beijing have been long-time arch-competitors for status and resources domestically also makes this case worth studying. It would be beneficial from IOC's perspective to understand the perception and psychology of citizens in a city with strong potential to bid for future Olympic Games.

The main research questions are: is the perception of the social impact of a sporting-event limited to the host-city's local population? If not, how is the expected social impact of the Winter Olympics perceived by non-host residents? What is the effect of perceived social impact on attitudes towards the Winter Games' bidding process?

Theoretical framework

Social impact of sporting events

As argued by Hall (1992), social impact can be defined as the manner in which events effect changes in the collective and individual value systems, behavior patterns, community structures, lifestyle and quality of life (p. 67). Although the social impacts of mega-sporting events are much less studied and assessed in the literature than other topics, such as economics (Horne & Manzenreiter, 2006), numerous references exist.

Lakshman (2008) carried out a comparative analysis of the differential impacts of mega-sporting events on social and economic development, growth and infrastructure in Japan and India. He used as cases studies the FIFA World Cup 2002 hosted by South Korea and Japan and the ICC Cricket World Cup co-hosted by India, Pakistan and Sri Lanka in 1996. In his analysis, he concluded that there are significant differences in the nature and direction of the impact of mega-sporting events on the society and economy of nations. These differences are generalized across the developed and emerging markets of Asia.

Through both quantitative and qualitative surveys, Antoniou (2011) examined local residents' perceptions of the social impacts of the FIBA EuroBasket 2011 in Lithuania. An exploratory factor analysis was conducted and results confirmed that, according to the local population, the event generated six impacts, including the long-term social impact on the local community. With regard to host-community continuums, Fredline and Faulkner (2000) examined the local community's attitudes to the impacts of the Gold Coast Indy Grand Prix by developing a 36-item impact scale. Six factors were also identified, including community benefits.

In the literature, some studies have focused on the social impact of mega-sporting events on particular groups in the local community. For example, Minnaert (2009) studied the effects of the Summer Olympics between Atlanta 1996 and Beijing 2008 on socially excluded groups. Another central conclusion of numerous studies is that positive or negative impacts of mega-sporting events largely depend on the location, type and scale of the event, as well as the locality in which they are held.

Importance of residents' perceptions on event planning and legacy

Nowadays, it is widely acknowledged that in order to make their mega sporting event successful, the organizing committee needs the support of the local community. However, surprisingly, residents' perceptions are often excluded from event planning and decision-making procedures (Teye, Sönmenz & Sirakaya, 2002). Thus, understanding how event perceptions are impacted at the local community level is particularly noteworthy for both academics and organizing committees (Gursoy, Jurowski & Uyal, 2002; Gursoy & Rutherford, 2004). Studying residents' perceptions before an event takes place is a major factor in making sure that the local population has a strong desire to host and support the event, and in making it a success.

In addition, a major concern is to strengthen the long-term positive legacy of the competition after the event has taken place. A good illustration of these issues has been given by Kim et

al. (2006), who focused on residents' perceptions of the impact of the 2002 World Cup using a pre- and post-event design. Furthermore, Balduck, Maes, and Buelens (2011) used a similar approach when carrying out two studies into residents' perceptions of the social impact of the arrival of a stage of the 2007 Tour de France in Ghent (Belgium), both pre- and post-event. An exploratory factor analysis carried out by the authors identified seven impact factors. According to them, the most highly perceived benefits identified from pre- and post-event tests related to culture and image, whereas the most highly perceived costs were excessive spending and mobility problems. This research goes beyond work by Bull and Lovell (2007), who only analyzed residents' views of a Tour de France stage in the run up to the event. Kim and Petrick (2005) investigated residents' perceptions and opinions of the impacts of the FIFA 2002 World Cup in Seoul. Image enhancement and consolidation were considered to be the most positive impacts of hosting the World Cup, while traffic problems and congestion were seen as the most negative economic impacts. Ohman, Jones, and Wilkes (2006) measured perceived social impacts of the 2006 FIFA World Cup using face-to-face structured interviews with Munich residents. The interviews were carried out shortly after the World Cup and concluded that, on the whole, residents' experiences of hosting the event were positive.

Social exchange theory

In order to gain an understanding of the host and non-host residents' attitudes toward these perceived impacts, social exchange theory has been used as a theoretical base. This theory has served as an appropriate and effective foundation for studying residents' perceptions of tourism (Jurowski, 1994; Deccio & Baloglu, 2002). It is a theory which contends that an individual or group is happy to become involved in an exchange with another party if the individual or group thinks that there will be some kind of derived benefit from the exchange (Gursoy & Kendall, 2006).

The key benefits of using social exchange theory lie in its ability to explain attitudes and investigate exchanges at an individual or group level (Ap, 1992). One key point mentioned in social exchange theory (in addition to the notion of short- or long-term effects) is the balance between the social costs and social benefits of the event, as perceived by the local population. This approach also states that citizens have a set of representations about two different variables (for example, tourism and sporting event, urban regeneration and sporting event, social cohesion and sporting event), which defines their perceptions regarding the impact generated from one to the other. This set of representations is determined by their direct experiences, by social interactions and by other factors such as the media.

Following Richie's classification (1984), Hall (1989; 1992) differentiated between the positive and negative impacts of events (e.g. public costs, community displacement¹ and disruption, security issues, pedestrian and traffic congestion, parking issues, pollution, and exaggerated sport fan behavior) (Higham, 1999; Johnson, Snepenger & Aki, 1994). Obviously, if the costs (negative impacts) exceed the benefits (positive impacts), then residents may be against the event or even consider the event in a negative light. This theoretical perspective has also been adopted by Gursoy and Rutherford (2004); Hritz, Ross, 2010 and Waitt (2003).

Most the references have dealt with hallmark sporting events. On the other hand, Taks (2013) looked in particular at the social impacts of non-mega sports events (non-mega sporting events), using four different perspectives: power relations, urban regeneration, socialization, and human capital. According to the author, it is more likely that non-mega-sporting events have a higher social impact than mega-sporting events because non-mega-sporting events are omnipresent. Agha, Taks (2015) found similar results for the economic impact of non-mega-sporting events. Ntloko and Swart (2008) studied the Red Bull Big Wave Africa (RBBWA)

¹ As an example, a task force that investigated the social impact of the 1996 Atlanta Games reported that 15 000 residents were evicted from public housing projects which were demolished to make way for Olympic accommodation.

case and Pranic, Petric, and Cetinic (2012) looked at the 2009 World Men's Handball Championship (WMHC09), focusing on the management and social impacts of non-mega-sporting events. Using Shanghai as an example, Liu (2016) examined the social impact of major sporting events, as perceived by host city residents, by taking an event portfolio approach. Liu's results revealed six impact factors, including four positive ones and two negative ones, with four out of the six impact factors being significantly predictive of the attitude towards future bidding for mega-sporting events.

Methods

Questionnaire and Scale Development

For this research, we decided to use mega-sporting events to measure the non-host city residents' representation of their social impact. The Winter Olympic Games belong to the category of mega-sporting events defined by Ritchie (1984) as "major one-time or recurring events of limited duration, developed primarily to enhance the awareness, appeal and profitability of a tourism destination in the short and/or long term". Moreover, Muller (2015) provided a definition and classification scheme for large events. His work is based on four dimensions of mega-events: visitor attractiveness, mediated reach, costs, transformative impact. From this, he distinguished three types of large events: giga-events, mega-events, major-events. As examples, Summer Olympics were classified as giga-event, Winter Olympics as mega-event and Commonwealth Games as major-event.

This paper is focused in particular on the bid to host the 2022 Beijing Winter Olympics. This event is quite unique in the history of mega-sporting events because it means that, for the first time, the same city will have organized both the Summer and Winter Olympics. Beijing, which has a population of 21 million, organized the Summer Olympics in 2008. In July 2015, the IOC declared that Beijing had prevailed over Almaty, Kazakhstan in the bid to become the host city of the 2022 Winter Olympic Games.

An initial scale was developed to measure perceived social impact; this was based on two steps. First, secondary sources were used. The initial draft consisted of items used in other event impact studies reported in the literature (Balduck, Maes & Buelens, 2011; Ritchie, Shipway & Cleeve, 2009; Ohmann, Jones & Wilkes, 2006; Liu & Wilson, 2014; Liu, Broom & Wilson, 2014). Second, the items were sent to a panel consisting of four sports management professors for review and discussion.

After the above steps, revisions were made. The final impact instrument contained 56 items, including 28 positive impact items and 28 negative ones. The scale questions start with discription: “Below are statements of possible impact you would expect of Winter Olympics to the host country if China won the bid, please mark the appropriate number according to the degree that you agree with it.” These impact items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

In addition, the questionnaire also consisted of the following questions: demographic questions, questions that test peoples’ awareness of Beijing’s bid, questions relating to the overall evaluation of the possible hosting of the Winter Games, and questions regarding attitudes. The demographic background section mainly included gender and age. The attitude section asked the respondents whether they supported Beijing’s bid to host the Winter Games. Their responses were measured on a five-point Likert scale ranging from 1 (strongly oppose) to 5 (strongly support).

The questionnaire was initially created in English and proofread by a native English postgraduate student studying sports management; it was then translated into Chinese by the authors. Afterwards, the Chinese version was translated back into English by an English language professor for reliability purposes. Corrections were made until both the authors and the language professor believed the translation was satisfactory.

Data collection

The purpose of this research is to study the perceptions of the non-host city community with regard to the expected social impact of a sporting event held in the country during the bidding stage. More precisely, our aim is to study the Shanghai residents' representation of the social impact of the 2022 Beijing Winter Olympic Games. Shanghai has a population of 24 million, and is a city located 1,300 kilometers south of Beijing.

An empirical survey study was conducted in which data was collected from Shanghai residents between June 25 and July 15, 2015, just weeks before the host city was selected. Ten trained college students were divided into five pairs and assigned to public places (e.g. shopping malls, retail outlets, and university campuses) in Shanghai to collect data through self-completion structured questionnaires. Data was collected at each site at different times of the day and on different days of the week. Due to budget constraints, the sample was not designed to be representative of the population. While caution needs to be taken when generalizing the findings to all residents of Shanghai, a convenience sample is considered acceptable given this is an explorative study in nature. Respondents were intercepted and a filter question was used to identify local residents. In general, the residents approached were cooperative and willing to answer the questionnaire (i.e., a response rate of approximately 85%). In total, 500 questionnaires were eventually distributed and collected; 17 of these were incomplete and hence dropped, resulting in 483 questionnaires that could be used for further analysis.

Data analysis

Procedures in SPSS 15.0 were utilized to analyze the expected social impact of hosting the Winter Games through the calculation of descriptive statistics, exploratory factor analysis (EFA), and one sample t test. Regression analysis was conducted to determine the impact of perception on attitudes towards the bid.

Results

Descriptive results

The general profile of respondents can be seen in Table 1, which shows that just over half (51.3%) were male, 48.7% were female and the most represented age group was 18 to 25 years (54.1%). It also shows that 62.1% of respondents stated that they were aware of China's bid for the 2022 Winter Games, and 57.4% of the respondents could even correctly identify Beijing or Beijing and Zhangjiakou as the bidding city.

Insert here table 1

Evaluation of overall impact and attitudes

Table 2 shows that while a majority of the respondents (72.7%) believed that the benefits of a possible Winter Beijing Games would outweigh the cost, 38.3% of the respondents also thought the event would be a waste of public money. Table 3 also shows that while 66.4% of the respondents were in support of Beijing's bid, another 28.4 remained neutral and around 5% were opposed.

Insert here table 2

Insert here table 3

Factor Analysis

To examine the dimensions that underlie the expected impact, an EFA analysis with varimax rotation was undertaken. Several steps were taken, during which 16 items were eliminated because they did not meet the minimum 0.50 factor loading criterion or double loading. The factor analysis was conducted again with the remaining items. The KMO measure of sampling adequacy was 0.925, and the communalities were all above 0.5.

The factor loading matrix for the final solution is presented in Table 4. A total of 40 items were loaded on 8 factors with eigenvalues greater than 1; these factors explained 67.76% of the variance. The 8 factors were titled "security, pollution and disease" (11 items), "tourism and environment" (6 items), "social capital and psychic income" (5 items), "international

cooperation and exchange” (4 items), “infrastructure6” (4 items), “higher living cost” (4 items), “national image” (3 items), and “sport development” (3 items).

Insert here table 4

Expected impact of the Winter Olympic Games

In order to evaluate the level of the expected impact perceived by the residents along different dimensions, a one sample test with a critical value set at 3 (mid-point on the 5-point likert scale) was conducted to reflect the levels of perceived impact on different dimensions. Table 5 shows that all factors are significantly higher than the point of indifference, indicating that respondents had a distinct opinion about the expected impacts of hosting the Winter Games, with factor 7 (“national image”) ranking first, followed by factors 5, 4, 3, 8, 2, 6, and 1, respectively. Comparatively the two negative factors were rated lower than the positive factors with the score for factor 1 (“security, pollution and disease”) being the lowest at just above the midpoint, indicating that while the respondents think there does exist negative impact, they seem to believe that these impact would be marginal or less prominent compared with the positive impact.

In order to test the impact of socio-demographic variables on perceived impact factors, a series of ANOVA analyses were performed. No significant difference was found between genders on any of the perceived impact factors; nor was any difference found across age.

Insert here table 5

Effects of perceived impact on residents’ support for the bid

All 8 impact factors were entered into a multiple regression analysis to predict attitudes toward Beijing’s bid for the Winter Olympics. The results (Table 6) revealed all factors except factor 1 were significantly ($R^2=.208$; $F=16.866$; $p<0.001$) predictive of support for Beijing’s bid, with a total of 20.8% variance explained. While the effect of factor 2,3,4,5,7,8 is positive, the effect of factor 6 (“higher living cost”) was negative.

Insert here table 6

Discussion and limitations

In our study, 40 items along 8 dimensions were identified to measure the social impact of mega-sporting events (of these, 16 items were eliminated for not meeting the minimum 0.5 factor or double loading). Thus, this study appears to be the most complete overview of the social impact of mega-sporting events provided to date. Thus far, studies reported in the literature have used a lower number of items and factors (Antoniou, 2011; Balduck et al., 2011; Fredline & Faulkner, 2000; Kim & Walker, 2012; Pranic et al., 2012; Waitt, 2003). One of the reasons is that most of these studies are based on Crompton's (2004) psychic income paradigm, which resulted in a 22-item scale with five factors. The 8 factors model we used in this study also includes psychic income; however, it seems more relevant and global because it assesses the expected social impact of mega-sporting events. This is important because of the increased importance of assessing this kind of impact of mega-sporting events.

As shown above, economic impact and legacy have been the main issues for mega-sporting events for a long time; however, they have become more and more tricky to measure (and sometimes not credible). Thus, both event planners and local authorities are now paying more attention to social impact. The model provided in this study may be helpful for future surveys. Balduck et al. (2011) took a narrower approach, suggesting that "cultural interest and consolidation" and "excessive spending and mobility problems" were significant predictors of residents' willingness to host events in the future. In our study, seven factors ("tourism and environment", "social capital and psychic income", "higher living cost", "national image", "sport development", "international cooperation and exchange", and "infrastructure") out of the 8 were significantly predictive of support for Beijing's bid. While these results are not perfectly in line with what we find in the literature, these seven items of prediction are quite close to those found in existing publications (e.g. Ko and Stewart (2002) on social and cultural impacts or Taks et al. (2015) on the tourism effect). One can hypothesize that,

regardless of what kinds of mega-sporting events are involved, for most of the time these impact factors are significant predictors of residents' support and willingness to host the event.

The results are also in accordance with those found by Ohman et al. (2006), whereby (positive) perceptions of the social impact of an event are not dependent on socio-demographic factors such as age, gender or length of residence in the city. They are also fairly in line with findings by Kim and Petrick (2005), who considered "image enhancement and consolidation" to be the most positive impact, while "negative economic perspective, traffic problems and congestion" were seen as the most negative impacts of the 2002 FIFA World Cup.

From a more general perspective, the biggest theoretical input of our study is to answer the question: how would non-host community perceive the possible impact from hosting a mega-sporting event during the bidding stage? The above data show that non-host local community would expect both positive and negative social impact from hosting Winter Olympics. In addition, the factors of prediction are quite close to those mentioned in publications about the local population.

From a managerial perspective, this point is important for leaders of public authorities in cities that may want, in the future, to be candidates for hosting mega-sporting events. Thus, it would be easier for them to convince people that the hosting of an event is primarily a unifying and national project rather than just a local one. If social impact exists beyond the local community, many people in the country could be affected and this could lead to positive (or potentially negative) attitudes towards the event. Nevertheless, our research was designed to focus only on the social effects on the non-host population. Our survey did not include interviews with Beijing residents; thus, we were not able to distinguish between the perceived social impact on the non-host community (Shanghai) and the perceived social impact on the

host community (Beijing). As a result, future research could compare the perceptions of non-host city residents with those of the host city population.

Moreover, if the social effect is not limited to the local community, we need to learn more about how far from the host city's strategic outcomes mega-sporting events may appear. Indeed, Beesley and Chalip (2011) found that the framework used to study the tourism effect in China (in particular, in Beijing and Shanghai) during the 2008 Olympics could not have been transferred to Australia because of incompatibility in terms of "local systems, values and tourism development vision". As a result, we would need to know more in the future about what the host community and the non-host community have in common in order to hypothesize the existence of a social impact. Does a social effect only exist when the non-host community belongs to the same country or region as the host community, when the local systems are equally organized, or when both populations have the same general attributes, behaviors or intentions.

Furthermore, as mentioned above, research that has focused on the social impact of sporting events can be divided into two categories: studies that are related to non-mega-sporting events and those which look at mega-sporting events. Taks (2013) stated that non-mega-sporting events could have a higher social impact than mega-sporting events, because of "the creation of tighter social networks and connectedness of the local population with the event". She encouraged comparisons between the perceived effects of both non-mega-sporting events and mega-sporting events. Our focus on the Winter Olympic Games puts our study in the first category. In this study, data related to residents' perceptions of the social impact of the event. As described above, we can confirm that mega-sporting events can have an important perceived social effect on a non-local host population; however, the design of our research means that we can't ascertain that the latter is higher for non-mega-sporting events than for mega-sporting events. Nonetheless, Taks' (2013) assertion still sounds like a promising

research perspective that is subject to testing. On this specific point, it may be of interest to assess whether the social impact on the non-host community is limited to mega-sporting events or also includes non-mega-sporting events. Thus, one can hypothesize that this perceived social impact on the non-host community is important if the event is a hallmark event. Consequently, if non-mega-sporting events are studied rather than mega-sporting events, the social effect may not exist beyond the host community.

In addition, the study showed that while negative impacts were expected by the non-host residents, they tended to be outweighed by positive ones. This finding was also supported by the extent of the overall support for the bid, which outstripped opposition. Thus, while in Western countries the community support for mega-sporting events, especially the Winter Olympic Games, is in general decline, as shown by the ever smaller number of cities willing to enter the bidding process, public support still exists in emerging markets such as China. This finding is also in line with Liu, Broom and Wilson (2014), who argued that economic and cultural backgrounds might make a difference.

Another element to be discussed is that the survey was conducted from a pre-event perspective. The Winter Olympic Games in Beijing will be held in 2022. As a result, one of the key choices in our method was to provide a pre-event analysis of the social impact of this event. Looking at the literature, it appears that this method is quite usual, regardless of the kind of impact studied (Lakshman, 2008; Kim et al., 2006; Balduck et al., 2011). However, the nature of our study is rather different in that it only looks at the bidding stage and how non-host community's perceptions affect attitudes towards bidding. Indeed, several surveys have also provided a comparison between ex ante and ex post impacts of a sporting event. Most of them found significant differences when comparing ex ante and ex post social impacts of a sporting event. The authors concluded that people's attitudes towards certain events are always changing and are never permanent. For example, Waitt (2003) observed this

social costs-benefits balance when examining changes in enthusiasm towards the Sydney Olympics between 1998 and 2000. Kim et al. (2006), Kim and Petrick (2005) and Balduck et al. (2011) derived the same conclusion.

Our data were collected in 2015 but refer to an event that will be held in 2022. Changes in the attitudes of the host or non-host city residents are likely to appear. It would be interesting, therefore, to conduct a long-term study about Shanghai residents' attitudes and perceptions of the social impact of the 2022 Winter Olympic Games. Our study is only based on a pre-event approach; thus, it does not allow a comparison to be made between *ex ante* and *ex post* impacts. This limitation requires further attention if we are to get a global view of the social impact of this event and to understand the way in which this event has been managed and broadcast, and how the performances of athletes influence perceptions of this event's social impact. Thus, in addition to comparing the effect of the event on the non-local community and local community, another research perspective could be to conduct a post-event study and then analyze how changes can appear in terms of perceptions of social impact.

An additional comment relates to the way in which people's perceptions are taken into consideration when designing bids for sporting events. Taks (2013) put forward the idea of power relations. In his study, he referred to the use of urban regime theory in sport (Misener & Mason, 2006; 2008; 2009; Carey, Misener & Mason, 2014), whereby business elites initiate the push to host events. In short, as events require investments of human, financial and physical resources from communities, once a city has won the bid to host an event through private capital and public power, the local community is asked to react to prepared plans rather than be involved in co-creating them. Exceptionally, Preuss and Solberg (2006) estimated that local residents can play a role in the bidding process. In our study, data about the perception of social impact were gathered at the end of the bidding process (i.e., before the 2022 host city was picked by the IOC). Thus, our findings could not be used to fill the gap in

the literature with regards to taking people's attitudes into consideration before the bidding stage, whether or not the public authorities were already thinking about bidding. However, the findings from this study would allow us to consider this attitude during the planning of an event.

From a broader perspective, politics may also play a role in the process of bidding for mega-sporting events; thus, future research could be directed towards encouraging strategic outcomes. Djaballah, Hautbois & Desbordes (2015) used a sensemaking approach that was based on local government's perceptions and strategies. Analyzing 25 medium-sized French cities, they found that, although politics perceived that non-mega-sporting events resulted in more positive than negative impacts, they are more involved in managing the negative impacts than leveraging the positive ones. It may be relevant to pay attention to the role of politics in the case of a specific event, such as the Winter Olympic Games, and to look at the way they manage positive and negative social effects.

The final point to be discussed is that the social impact of the 2022 Beijing Winter Games was studied through the perception of residents. This is a key factor for event managers if they are to plan the event in the best way possible. It will also be central to the local and national authorities that bid for this event. This is why more and more studies are seeking to take residents' perceptions into consideration. Nevertheless, it is also important to remember that perception is not reality. Thus, in addition to perception-oriented approaches, academic research should also strengthen the assessment of the social impact of sporting events through objective criteria. This kind of approach is much less clearly provided for in the literature. Indeed, it appears as both another direction for future research and a limitation of our study.

Conclusion

This study highlighted the expected social impact of mega-sporting events from a non-host perspective. Many authors have put forward diverse theories to understand and explain changes in residents' perceptions of sporting events. Most of these surveys have been conducted in the field of tourism research and, thus, are based on an analysis of the reactions, attitudes or perceptions on the impact of tourism held by local communities (Deery & Jargo, 2010). Most of them used the social exchange theory, as was the case for this study. This approach appears to be the most appropriate.

However, our survey did not provide information about the way in which citizens' set of representations have been determined by direct experiences of mega-sporting events, and social interactions or others factors such as media or former mega-sporting events hosted in the city. Thus, for the first time in the history of Olympic Games, a single city will have been chosen to host both the Summer and Winter Olympics, Beijing having already hosted the Summer Olympics in 2008. Further surveys could address the lack of information about how former mega-sporting events hosted in the locality may influence the expected social impact of a future event.

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Table 1. Demographic Profile of the Residents

Socio-demographic variables	%
Gender	
Male	51.3
Female	48.7
Total	100
Age	
18-25	54.1
26-35	32.1
36-45	6.4
46-55	4.6
56 and over	2.9
Total	100
Awareness of China's bid	62.1
Recall of Beijing as the bidding city	57.4

Table 2 Evaluation of the overall impact of the possible hosting the Winter Games (%)

Statements	I strongly disagree	I disagree	Neutral	I agree	I strongly agree
1) The benefits of Beijing Winter Olympics outweigh the cost	1.4	5.2	20.7	43.9	28.8
2) The Winter Olympics is a waste of money	4.6	21.4	35.8	22.7	15.6

Table 3 Attitudes towards Beijing's bid(%)

Statements	I strongly oppose	I oppose	Neutral	I support	I strongly support
1) I'm in support of Beijing's bid	1.2	3.9	28.4	36.4	30

Table 4 Factor Structure of Impact Variables

Factor Labels and Items	1	2	3	4	5	6	7	8
Factor 1 - security, pollution and disease								
43) Increase crime	.755	.082	.114	-.081	-.083	.051	-.153	.159
44) Increase prostitution	.763	.040	.116	-.081	-.101	.060	-.175	.084
45) Bad behavior of fans	.774	.004	.041	-.168	-.002	.116	-.005	.105
46) Security problems	.800	.040	-.001	-.062	.007	.116	-.002	.018
47) Risk of terrorist attacks	.768	-.007	-.038	-.025	.008	.159	.163	.046
48) Damage the natural environment	.766	-.044	-.081	.037	.026	.229	.086	-.074
49) Increase air pollution	.736	-.031	-.043	.078	.071	.229	.132	-.076
50) Produce huge amount of waste	.706	-.078	-.111	.104	.163	.288	.119	-.153

51) Possibility of infectious diseases	.787	.006	-.054	.100	.073	.061	-.021	-.143
52) Increase the chance of contracting HIV	.792	.046	.003	.165	.011	-.004	-.177	-.058
53) Possibility of food poisoning	.801	.061	.045	.080	-.035	.065	-.109	-.009
Factor 2 - tourism and environment								
23) Promote tourism	.142	.588	.174	.217	.327	-.021	.194	-.034
24) Upgrade tourism environment	.016	.706	.229	.095	.196	-.126	.030	.164
25) Help optimize industry structure	.071	.704	.201	.230	.158	.029	.135	.120
26) Boost government's investment in environmental protection	-.050	.775	.134	.186	.108	-.035	.188	.132
27) Improve awareness of environmental protection	.010	.802	.221	.060	.056	-.019	.022	.219
28) Promote green technology	.011	.793	.148	.089	.001	-.027	.047	.162
Factor 3 - social capital and psychic income								
5) Skills and knowledge of host community	.032	.312	.645	.014	.300	-.070	.011	.262
6) Promote social cohesion	.028	.319	.737	.074	.172	-.040	.088	.201
7) Promote volunteerism	-.038	.226	.674	.215	.163	-.014	.226	.115
8) Promote national unity	.019	.244	.747	.222	.121	.001	.162	.054
9) Increase national pride	-.007	.160	.667	.272	.127	.015	.335	.002
Factor 4 - international cooperation and exchange								
15) Promote international cooperation	.011	.211	.086	.763	.179	.064	.156	.195
16) Promote international exchange	.037	.156	.080	.798	.218	.036	.178	.100
17) Promote international friendship	-.012	.159	.226	.770	.171	.004	.150	.096
18) Diplomacy opportunity	.073	.185	.263	.702	.089	.030	.129	.164
Factor 5 - infrastructure								
1) Improve urban infrastructure	-.027	.266	.147	.239	.736	-.004	.137	-.062
2) Create new tourist attractions	.014	.182	.170	.211	.718	.098	.073	.017
3) Improve transportation infrastructure	.016	.245	.209	.149	.726	-.071	.050	.159
4) Build new sports and leisure facilities	.034	-.045	.115	.061	.670	.064	.094	.279
Factor 6 - higher living cost								
29) Cost huge amount of public money	.224	-.072	-.147	.001	.128	.767	.107	-.021
30) Increase life cost	.273	.014	.113	-.011	-.027	.809	-.130	-.007

31) Lead to inflation	.368	.042	.162	.059	-.049	.764	-.094	.001
32) Post-event white elephant	.297	-.175	-.221	.086	.021	.660	.118	-.076
Factor 7 - national image								
10) Global promotion of Chinese culture	-.035	.225	.303	.217	.114	.014	.669	.108
11) Help the world better understand China	-.046	.158	.208	.240	.146	-.005	.784	.131
12) Positive national image	-.113	.181	.269	.285	.143	-.007	.599	.214
Factor 8 – sport development								
20) Promote winter sports participation	-.010	.247	.194	.209	.074	-.085	.069	.713
21) Promote elite winter sports	-.056	.322	.145	.154	.148	-.012	.151	.692
22) Promote construction of sports facilities	.014	.280	.127	.234	.191	-.011	.178	.638
Total Rotation Sums of Squared	6.908	4.258	3.317	3.191	2.707	2.575	2.117	2.031
Loadings								
Variance explained (%)	17.269	10.645	8.294	7.976	6.769	6.438	5.292	5.077
Cumulative Variance explained	17.269	27.914	36.208	44.184	50.953	57.391	62.682	67.759

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization; the items were measured on a five-point Likert scale where 1= strongly disagree and 5=strongly agree.

Table 5 One-Sample Statistics for the Impact Dimensions and Point of Indifference

Factors	Weighted		t-test	Sig. (2-tailed)	Mean Difference
	Mean Score	SD			
Factor 1-security, pollution and disease	3.12	.879	2.964	.003	.11852
Factor 2-tourism and environment	3.87	.722	26.40	.000	.867
Factor 3-social capital and psychic income	3.88	.756	25.72	.000	.8845
Factor 4-international cooperation and exchange	4.11	.702	34.86	.000	1.113
Factor 5- infrastructure	4.14	.668	37.40	.000	1.137
Factor 6- higher living cost	3.86	.768	24.69	.000	.863
Factor 7-national image	4.25	.668	41.14	.000	1.250
Factor 8- sport development	3.88	.748	25.92	.000	.88

Note: N=483, point of indifference=3.

Table 6 Regression Analysis on Impact Factors in Support of Future Bids

Variable	B	Std. Error	Beta	t	Sig.
Constant	3.901	.037		104.827	.000
Factor 1-security, pollution and disease	-.014	.037	-.016	-.383	.702
Factor 2-tourism and environment	.262	.037	.285	7.026	.000
Factor 3-social capital and psychic income	.170	.037	.185	4.558	.000
Factor 4-international cooperation and exchange	.109	.037	.118	2.914	.004
Factor 5- infrastructure	.112	.037	.122	2.999	.003
Factor 6- higher living cost	-.179	.037	-.194	-4.797	.000
Factor 7-national image	.116	.037	.126	3.115	.002
Factor 8- sport development	.142	.037	.154	3.800	.000
(R Square=.208; F=16.866, p=.000)					

Note: Dependent Variable: support Beijing's bid for Winter Olympics