

Residents' perceptions on impacts of hosting the "Guimarães 2012 European Capital of Culture": comparisons of the pre- and post-2012 ECOC

Paula Cristina Remoaldo, Department of Geography, University of Minho and CICS/NIGP, Braga, Portugal

Laurentina Vareiro, Polytechnic Institute of Cávado and Ave and UNIAG, Barcelos, Portugal

J. Cadima Ribeiro, University of Minho and NIPE, Braga, Portugal

J. Freitas Santos, Polytechnic of Porto, Accountancy and Administration Institute/CECEJ and NIPE, University of Minho

Abstract

Residents tend to have high expectations about the benefits of hosting a mega-event. So, it was not surprising that the nomination of Guimarães, Portugal, as the 2012 European Capital of Culture (2012 ECOC) had raised great expectations in the local community towards its socio-economic and cultural benefits. The present research was designed to examine the Guimarães residents' perceptions on the impacts of hosting the 2012 ECOC approached in two different time schedules, the pre- and the post-event, trying to capture the evolution of the residents' evaluation of its impacts. For getting the data, two surveys were applied to Guimarães' residents, one in the pre-event phase, in 2011, and another in the post-event phase, in 2013. This approach is uncommonly applied to Portugal data and it is even the first time it was done to a Portuguese European Capital of Culture. After a factor analysis, the results of *t*-tests indicate that there were significant differences ($p < 0.05$) between the samples from the pre- and post-2012 ECOC on two positive impact factors (*Community' benefits* and *Residents' benefits*) and one negative impact factor (*Economic, social and environmental costs*). Respondents also showed a negative perception of the impacts in all dimensions, except *Changes in habits of Guimarães residents*.

Keywords: Guimarães 2012 ECOC; mega-events impacts; residents' perceptions; temporal effects.

JEL: L83

Introduction

Residents tend to have high expectations about the benefits of hosting a mega-event, namely the creation of new infrastructure, GDP and employment growth, image enhancement and derived tourism attraction and sustainable growth of the cultural supply. Nevertheless, they normally recognize that some costs will occur (Kim and

Petrick; 2005; Kim, Gursoy and Lee, 2006; Ritchie, Shipway and Cleeve, 2009; Gursoy et al., 2011). So, it was not surprising that the nomination of Guimarães, a small city located in the Northwest of Portugal, as one of the two cities that hold the 2012 European Capital of Culture (2012 ECOC), had raised great expectations in the local community towards its socio-economic and cultural benefits.

The present research was designed to examine the Guimarães residents' perceptions on the impacts of hosting the 2012 ECOC approached in two different time schedules: the pre- and the post-event, trying to capture the evolution of the residents' evaluation of its impacts. For getting the data two surveys were applied to Guimarães residents, one pre-event, in 2011, and another post-event, in 2013.

The questionnaires applied were directed, in both periods, to the residents of the municipality and contained questions about their perception on the cultural event, namely personal feelings and perceived economic, social, cultural, environmental and tourism impacts.

The evaluation of Guimarães residents was thought to be essential for getting an accurate evaluation of the impact of the mega-event as they were a main part of the hosting process and, certainly, its impacts were mainly felt by them and, in most cases, will go on affecting them in the short and long term future.

The research was thought to be socially pertinent, additionally, as the opinions collected through the surveys can help to avoid the recurrence of common mistakes during the organization of similar mega-events in the future and to increase the derived positive impacts of their hosting. When we speak of the social pertinence of the empirical results gotten, we want to underline that the expertise acquired can be useful no matter the hosting city or country we are considering.

This approach is uncommonly applied to Portugal data and it is even the first time it was used in the context of the evaluation of a European Capitals of Culture hosted by Portugal. A factor analysis and *t*-tests was used to treat data collected.

This paper is organized as follows: in the first section a review of the literature is conducted on expected impacts of mega-event and on the perceptions of the hosting communities towards those impacts; section two presents a summary characterization of the city of Guimarães and identifies the methodology used in the empirical approach; in the third section we present the main results of the empirical application, followed by

the discussion of the results gotten; finally, we will have the conclusions, which includes a few policy recommendations and possible paths for future research.

1. Literature review

1.1-The ECOC as a mega-event

A consensus has not yet been found on the definition of mega-event but it is generally taken as a large-scale event (cultural, sporting and, even, commercial) of one year or less of duration (Ritchie, 1984; Roche, 1994; Ritchie and Hall, 1999; Roche, 2000; Liu, 2012). Its dramatic character, mass popular appeal and international significance or international magnitudes have been also underlined (Roche, 2000; Liu 2012). Kim, Gursoy and Lee (2006) take them as one-off and short-term events that usually generate long term impacts on the hosting communities.

Mills and Rosentraub (2013) also identified this phenomenon as significant national or global events (they referred to competitions), emphasising that it produces extensive levels of participation and media coverage and, then, often requires large public investments into, both, event infrastructure and general infrastructures. The opportunity for giving large external visibility and promoting the city or the territory as a welcoming one has been also emphasized by Deccio and Baloglu (2002), as well as by Kim, Gursoy and Lee (2006) and Strauf and Schere (2012), among others.

Having in mind the magnitudes of and resources involved in the organization of these events, they are typically organized by a variable combination of national governmental and international non-governmental organizations (Kim, Gursoy and Lee, 2006; Gursoy et al., 2011).

In various studies, we also encounter the definition firstly advanced by Ritchie (1984) and retaken later by Ritchie and Hall (1999) that mega or hallmark events are major one-time or recurring events of limited duration, developed primarily to enhance the awareness, appeal, and profitability of tourism destinations in the short and/or long term, envisaging responding to seasonal tourist demand problems (Ritchie and Hall, 1999; Gursoy et al., 2011).

Even if the implementation of the mega-event is limited in time, its preparation goes on for several years (Santos, 2002) as well as its future impacts, either in terms of induced costs or benefits, including the tourism one, that is, the eventual effect in terms of

attracting visitors to the destination. As mentioned, they are certainly an important economic asset with participants and visitors being attracted to the destination, both, directly and indirectly (Kang and Perdue, 1994; Bramwell, 1997; Strauf and Scherer, 2010; Kaiser et al., 2013).

Some other characteristics are: its institutional framework and programming which, for assuring an enlarged impact, must have an international character; the quantity and diversity of the events, namely if we are dealing with a cultural or artistic one; and the mobilization of various types of public (visitors and spectators) and the amount of public participation aimed (Santos, 2002).

A European Capital of Culture is an example of an annual mega-event (Palonen, 2011) and it can be used to reinforce the image of the hosting city at national and international level. The idea of implementing European Capitals of Culture was born in Athens, in 1985. Twenty nine years later, the European Capitals of Culture are the most ambitious cultural project kept in Europe, with budgets that exceed any other cultural event.

The intensity of the cultural activity normally performed in the aim of a European Capitals of Culture (ECOC) and the duration of the project, makes of it a mega-event. This mega-event is the perfect one for challenging citizens, to cause feelings of citizenship through participation, and is also an opportunity for regenerating the hosting urban space (Palonen, 2011).

In summary, we can say that a mega-event corresponds to an event of large-scale that claims large amount of resources (human and financial) to be staged and tends to generate long-term impacts on host communities (Ritchie, 1984; Ritchie and Hall, 1999; Roche, 2000; Ritchie, Shipway and Cleeve, 2009; Gursoy et al., 2011; Liu, 2012).

1.2-The impacts of an ECOC

The impacts of an ECOC can be of economic, socio-cultural, psychological, environmental, political and image nature, and can be, both, positive or negative (Kim, Gursoy and Lee, 2006; Ritchie, Shipway and Cleeve, 2009; Gursoy et al., 2011). Referring to those impacts, Kim, Gursoy, and Lee, 2006, use the term “profound”. According to the same authors, followed in that idea by Ritchie, Shipway and Cleeve (2009) and Gursoy et al. (2011), namely, in the pre-period of hosting the mega-event,

residents' tend to ignore or devalue the negative impacts and to venerate the expected benefits.

Regarding those impacts, in what concerns the economic ones, normally, there is place to include the increasing of employment and retail opportunities, the growth of the income that tends to increase before, during and after the hosting of the mega-event (Gursoy and Kendall, 2006; Langen, 2008; Langen and Garcia, 2009; Ritchie, Shipway and Cleeve, 2009; Gursoy et al., 2011). But, as mentioned, there is place to add, also, the opportunity for more advertising of the products and services of the hosting city and country (Jeong and Faulkner, 1996; Deccio and Baloglu, 2002; Gursoy and Kendall, 2006; Langen and Garcia, 2009), the attraction of investments for creating new facilities and infrastructure, including transport ones (Deccio and Baloglu, 2002; Gursoy and Kendall, 2006; Getz, 2008; Gursoy et al., 2011), landscape improvements and housing development and an increase in the local standards of living (Goeldner and Long, 1987; Kim and Petrick, 2005; Ritchie, Shipway and Cleeve, 2009).

The economic negative impacts emerging from the hosting of these events can be the rising of the prices of goods, services and properties and the increased cost of living (Kim and Petrick, 2005; Ritchie, Shipway and Cleeve, 2009; Remoaldo, Duque and Cadima Ribeiro, 2014). In this regard, a major contribution can come from the growth of the tourism activity.

Concerning the positive socio-cultural impacts, one can mention the increase in community's self-esteem, the increase in the standards of living, the strengthening/preservation of local cultural values and traditions, the help in the construction of a national identity, the opportunities to meet new people and the more interesting things to do (Remoaldo, Duque and Cadima Ribeiro, 2014). But we can not forget the risk of increased delinquent behaviour, the increased crime rate, the overcrowding and the conflicts that can emerge between visitors and residents (Remoaldo, Duque and Cadima Ribeiro, 2014).

Besides the lesser attention usually played to the socio-cultural impacts (Hall, 1992; Deccio and Baloglu, 2002; Wait, 2003; Kim, Gursoy and Lee, 2006; Ritchie, Shipway and Cleeve, 2009), the environmental impacts are, perhaps, among the less considered by local communities. Cooper et al. (1998) highlighted that the environment (natural or built) is, probably, the most fundamental ingredient of the tourism product. But only a few of studies conducted took these kinds of impacts as their main concern (Cooper et

al., 1998; Rátz and Puczkó, 2002). The preservation of the built heritage and the increased public safety can be faced as the more important positive impacts but several negative impacts can be also mentioned. The degradation of the physical and natural environment, the increase of litter, noise, the decrease in quality of air and of water, the traffic congestion and parking problems and the increase of rail and air traffic are among the more important ones (Remoaldo, Duque and Cadima Ribeiro, 2014).

For a long time, research on mega-events impacts addressed mainly the sport ones, and their economic effects. The Olympics or the World and the European Football Cups (e.g., Deccio and Baloglu, 2002; Ritchie, Shipway and Cleeve, 2009; Gursoy et al., 2011; Lepp and Gibson, 2011) were the more studied mega-events. The cultural events have been placed on a quite secondary plan, as highlighted by Gursoy and Kendall (2006), and Langen and Garcia (2009). Among the early exceptions we can find the research made by Ritchie (1984), Getz (1991) and Hall (1992). Due to the before mentioned fact, it is not surprising that there are few the studies dealing with the impacts of the European Capitals of Culture on the host communities.

In Portugal, among the first impact studies on hosting a mega-event performed we can find the one of Martins et al. (2004), dealing with the 2004 UEFA European Football Cup, hosted by the country. In the proper sense, for the Lisbon 1994 ECOC and the Porto 2001 ECOC (the two first ECOC hosted in Portugal before Guimarães) were not produced studies of impact. One of the reasons for that has to do with the fact that only since 2006 the European Commission turned compulsory the impact evaluation of the European Capitals of Culture (Decision nº 1622/2006/EC).

In the case of the 2012 Guimarães ECOC, due to the previous mentioned compulsory task, an official evaluation was performed, conducted by a technical team from the University of Minho, whose main results have been made public (Universidade do Minho, 2012a, 2012b, 2013a, 2013b). It was measured the social, economic, media and digital impacts using quantitative and qualitative methodologies.

Generally speaking, the results found were considered to be positive. Regarding tourism, those results show that the number of foreigner visitors grew more than 50%. In what regards the national visitors the increase attained almost 300%. Additionally, almost a quarter of the interviewed merchants considered that the business impact of the ECOC “was higher than expected” (Universidade do Minho, 2013b: 158) and for more than 40% of them the impact met their expectations (Universidade do Minho, 2013b).

But, even if the study (Universidade do Minho, 2012b) collected information from various stakeholders (e.g., participants in the events, tourists, younger residents, agents involved with 2012 ECOC, local trade), the main study approaching directly the perceptions of residents was performed in the ex-ante period (december 2011) and was applied just to a sample of 6.815 students of the basic and secondary scholar system of Guimarães. That study assumed that the students of basic and secondary education were a relevant target population of the 2012 ECOC and, somehow, could express a point of view representative of the local community population, as a whole (Universidade do Minho, 2012b). Due to that, the results found must be carefully considered.

1.3-Residents' perceptions of the impacts: the approaches pre- and post- mega-events

Studies on residents' perceptions towards tourism have been performed since a few decades ago and their results published in international journals, as it is well documented by Nunkoo *et al.* (2013). As underlined by the empirical research (Nunkoo *et al.*, 2013), to understand residents' attitudes is crucial to gain their active support to tourism development and, mostly, to implement it in a sustainable way. Having in mind the empirical and theoretical research undertaken, this tourism field is now one of the most researched areas (Nunkoo *et al.*, 2013).

Nevertheless, even if one can find many studies dealing with residents' perceptions towards tourism and, even, on residents' perceptions of the impacts of hosting mega-events, not so many have focused on post events residents' perceptions and even less have developed a longitudinal approach to better understand the phenomenon (Ritchie, Shipway and Cleeve, 2009; Gursoy *et al.*, 2011).

Despite mostly mega-events being single happenings, staged during one year or less time, they are likely to have long-term effects on the territories and communities that host them (Hiller, 1990; Roche, 1994; Kim, Gursoy and Lee, 2006; Gursoy *et al.*, 2011). By reviewing their overall success or failure, it is possible to determine the key issues behind that and, thus, extract recommendations which can later be used in the context of the planning and management of future events (Ritchie, Shipway and Cleeve, 2009). Post-event studies give an opportunity to establish economic, social, cultural benefits and international exposure effects and discovering its true legacy and impacts (Ritchie, Shipway and Cleeve, 2009; Gursoy *et al.*, 2011).

Empirical studies focused on mega sport events, such as the Olympic Games, have shown that it is equally important to consider residents' perceptions in different periods of time, as the impacts perceived change, as well the way the hosting communities look to those impacts (Ritchie, Shipway and Cleeve, 2009). Not long ago, Kim, Gursoy and Lee (2006), Ritchie, Shipway and Cleeve (2009) and Gursoy et al. (2011), namely, have considered the pre- and post-period in considering the 2002 World Cup, the 2012 London Olympic Games and the 2008 Olympic Games, respectively, and centred their attention on residents' perceptions, calling the attention to the way that changed as time goes by. From those approaches a clear claim for the need of examining perceptual shifts in community reactions towards events has been raised (Ritchie, Shipway and Cleeve, 2009). As claimed above, an attentive look to (monitoring of) these variations can help policy makers and mega-events planners to better understand residents' perceptions and act according, including the demystifying of unrealistic expectations of local communities.

Ideally, this kind of studies need to collect data in several waves, including the before, during and after periods, to get a clear picture on the variation in perceptions (Gursoy et al., 2011), even if we can admit that to implement it is rather difficult and expensive. Being so, in a few cases, researchers have taken the option of conducting sectional studies in the pre- and post-event hosting. This was the option taken, for example, by Ritchie, Shipway and Cleeve (2009).

The post period seems to be able of supplying a clear picture of the impacts of the event than a survey conducted during it. The purpose of post-event studies is to identify if the event and all effects and happenings connected with it met the expectations of participants, hosting community or other stakeholders. In this aim, it is usual to get information on various features, such as if community members perceived the event valuable, if it was worth investing time and resources on it or if they would like to participate in a similar future event. Of course, as there will be long term effects, a more complete picture of those impacts can be captured just several years later (Kaiser et al., 2013).

As has been highlighted by the literature (e.g., Kim and Petrick, 2005; Gursoy and Kendall, 2006; Kim, Gursoy and Lee, 2006; Gursoy et al., 2011), residents tend to have high expectations about the benefits of hosting a mega-event, although they tend to recognize that some costs will result from it. In fact, before the mega-event residents

tend to evaluate it in a quite more positive way, namely if it is a first experience. Some of the factors that contribute to it are the marketing campaigns conducted by the authorities and mega-event organization committees, promotional information diffused by national media and government agencies (Kim, Gursoy and Lee, 2006).

The post-event allows people to get a much more realistic and less passionate approach to the hosting impacts. By them, the way the event has impacted different kind of stakeholders, including the residents, can also have a clear picture. One must have in mind that the distribution of costs and benefits will affect different sectors of the local community differently and the perceptions of the impacts, positive or negative, also will depend on the system of values of each group of the community members (Kim, Gursoy and Lee, 2006). In fact, the concerns and images of each individual of the community are constructed on the basis of their own value system and experiences.

In the period prior to the mega-event external factors, like information that the national media and government agencies provide, can interact with individual factors (e.g., knowledge, values, past experiences with some similar events). These kind of external factors can shape the initial perceptions on the event (Kim, Gursoy and Lee, 2006; Ritchie, Shipway and Cleeve, 2009).

It is understandable that the members of a community that benefit from the developing of an activity, including tourism, tend to support it, as confirmed by several studies (e.g., Kuvan and Akan, 2005; Jackson, 2008; Nunkoo, Gursoy and Juwaheer, 2010). On the contrary, those who derive little or no benefit from it tend to show their opposition (Ritchie, Shipway and Cleeve, 2009; Vareiro, Remoaldo and Cadima Ribeiro, 2013). This is valuable no matter if we are considering the host of a mega-event, having a sport, commercial or cultural nature, or the development of the tourism industry. As emphasized by Kim, Gursoy and Lee (2006: 87), if after hosting the event they receive the expected benefits, “they are likely to support hosting mega-events in future”.

Even if there are agents (stakeholders) interested in, estimating the residents’ perception towards mega-events is one of the most powerful potential indicators within the broader social impact evaluation of mega-events (Ritchie, Shipway and Cleeve, 2009; Gursoy et al., 2011), by the amount of people involved in and by the political pressure that can put on the policy makers.

This way of looking to the residents’ behaviour has its bases on the Social Exchange Theory (Waite, 2003; Gursoy and Kendall, 2006; Kim, Gursoy and Lee, 2006; Ritchie,

Shipway and Cleeve, 2009; Kaiser et al., 2013). Since the nineties that Ap (1990, 1992), particularly, has been highlighted that residents tend to form their perceptions based on the expected value of the exchange before the occurrence of the actual exchange. After the hosting of the mega-event they tend to re-evaluate the value of the exchange. If the re-evaluation develop the feeling of losses, this can generate negative perceptions (Kim, Gursoy and Lee, 2006; Ritchie, Shipway and Cleeve, 2009). In future, this re-evaluation of the exchange can be important to determine whether or not the residents' will support future events.

The accuracy of the postulates of the Social Exchange Theory is not full accepted in any circumstances (Ritchie, Shipway and Cleeve, 2009). Alternatively, Pearce et al., in a paper dated from 1996, as mentioned by Ritchie, Shipway and Cleeve (2009) have suggested that residents' knowledge is largely derived from the historical and societal context they live in. Based on that, those authors have claimed the Social Representation Theory would better capture the residents' attitudes. Another alternative theoretical approach comes from the Expectancy-value Model, which looks to the importance residents place on certain outcomes and the degree to which they believe a certain fact or event can contribute to these outcomes (Ritchie, Shipway and Cleeve, 2009).

Residents' perception towards mega-event is a quite vast matter. Anyway, one can expect that attitudes may differ according to gender, age (Mason and Cheyne, 2000; Kim and Petrick, 2005), social status (Ritchie, Shipway and Cleeve, 2009), and education, occupation or income (Waitt, 2003). Even so, having in mind the theoretical debate invoked, it is not surprising that the results of some of the empirical studies suggested that the differences in attitudes can be best attributed to the heterogeneity of urban communities rather than to demographic variables (Konstantaki and Wickens, 2010).

Independently of the accuracy of each of the mentioned theoretical approaches to residents' perceptions, what seems not to be questioned is the need to undertake research on communities' behaviour and reactions towards the hosting of mega-events. Equally important is the need to obtain a better understanding of the changing in perceptions of residents throughout the process associated with that hosting and, thus, also the relevance of implementing monitoring (Kim and Petrick, 2005; Kim, Gursoy and Lee, 2006; Ritchie, Shipway and Cleeve, 2009; Gursoy et al, 2011).

To get a friendly and hospitable hosting community are essential features in transforming a mega-event into an urban festival (Hiller, 1990). That has to do with envisaging to provide a significant experience to residents and guests and allowing to reach a positive balance in terms of short and long-term overall impacts.

In this regard, even if it is quite hard and costly to conduct a longitudinal research, in its closer sense, empirical cross-sectional researches, taking the pre- and the post-event periods, seem to be able of giving valuable contributions for getting a better understanding of the before identified concerns and, from there, for supporting the planning and the management of such kind of events.

2- Methods

2.1-Data Collection Procedure and Samples

The municipality of Guimarães had 69 parishes in the two moments of the present investigation and is located in the Northwest of Portugal. Its city is, nowadays, one of the most important cities in the Northern region, after Porto, Vila Nova de Gaia and Braga. Its historic centre city was declared by UNESCO, a World Heritage Site, in December 2001.

In 2012 it was the first time a Portuguese medium city hosted an ECOC, after the capital (Lisbon) in 1994 and the second more important city (Porto) in 2001 and Guimarães can be considered an emergent cultural destination at international level.

Data for this study were collected using self-administered survey applied to local residents of Guimarães (the host city of the 2012 ECOC). Based on the purpose of this study, four public secondary schools and one professional school available in the municipality were used for getting the survey samples. The goal of covering the 69 parishes that administratively constitute the municipality of Guimarães was the reason for using the high public schools and a vocational school as a way for delivering the questionnaire. This made possible to consider three generations of inhabitants (15–24-year-olds, 25–64-year-olds and the 65 or more years old residents) in our two surveys. The, at least, 15 years old students were taken as the gate to reach their relatives, as their brothers, parents, uncles and grandparents. We share the statement that individuals with at least 15 years can be considered capable of responding to the questionnaire as also highlighted by Poria et al. (2003).

Specifically, we asked the students, of 10th to 12th years of schooling, to fulfil the questionnaire and take it home and distribute it to their family members. This was the most efficient way we got for getting, both, a higher amount of responses and a representative sample of Guimarães residents.

Data were collected twice from two convenience samples of Guimarães residents: in the ex-ante period (during October and December 2011) 471 questionnaires with complete data were obtained and after the Guimarães 2012 ECOC (April and May 2013) 551 questionnaires were used.

The questionnaire used in the two periods consisted of 18 questions and included structured with a multiple-choice format questions, using in two of the questions the Likert scale with 5 levels (1 corresponded to "completely disagree" and 5 "completely agree"). It was divided in three parts. The first one was related to the intention (in ex-ante period)/effective participation (in the ex-post period) to attend and participate in the mega event (six questions). The second one was associated with the perceptions of residents' on the impacts of 2012 ECOC (two questions). The third part was concerned with sociodemographic characteristics, which allowed us to draw the profile of respondents (e.g., age, sex, marital status, level of education, parish of residence).

It was used a total of 20 items, in the two surveys, to assess Guimarães residents' perceptions of the 2012 ECOC' impacts. Those 20 items were selected from previous studies on the impacts of events (Jeon et al., 1990; Soutar and McLeod, 1993; Jeon, 1998; Turco, 1998; Gursoy and Kendal, 2006; Kim et al., 2006; Gursoy et al., 2011). Respondents were asked to evaluate all statements on a five-point Likert-type scale (1=completely disagree and 5=completely agree). Questionnaires distributed before the mega-event aimed to measure *expected* benefits and costs of the Guimarães 2012 ECOC whereas questionnaires after the mega-event measured perceived benefits and costs after hosting of the Guimarães 2012 ECOC.

2.2-Research Design and Data Analysis

First, the respondents' demographic profile was examined and the mean scores for all 20 impact perception items for before the event' and after the event' samples were calculated. Second, using the data collected prior to the 2012 ECOC, an exploratory factor analysis (EFA) with a principal component method was conducted to detect scale dimensionality. The appropriateness of factor analysis was determined by examining the Kaiser–Meyer–Olkin measure of sampling adequacy and the Bartlett's test of sphericity.

After identifying the dimensions, a Cronbach's Alpha reliability test was conducted to evaluate the reliability of each measurement scale. The identified factors were validated with the data collected after the mega-event.

Afterwards, a series of *t*-tests were conducted on the Guimarães residents' perceptions of 2012 ECOC and then each individual impact perceptions are examined utilizing before and after data. The *t*-test assesses whether the means of two groups are statistically different from each other. The *t*-value will be positive if the first mean is larger than the second and negative if it is smaller.

3-Main results

3.1-Profile of respondents

Table 1 summarizes the demographic profile of the study respondents taking into account the main socio-demographic variables. The majority of the respondents were female (59.2%), 54.4% were aged 15–24, the dominant education level was the up to six years (50.1%) and 35.5% of the respondents had household incomes between €500 and €1000, in the 'before the event' sample. Just over one-half (55.5%) of the respondents to the follow up survey were female, whereas 52.1% were aged 15-24. And about 42.7% of the respondents had household incomes between €500 and €1000.

Table 1 – Profile of the respondents

	Before (N=471)	After (N=551)
Gender	Percent (%)	
Female	59.2	55.5
Man	40.8	44.5
Age		
15-24	54.4	52.1
25-64	43.1	43.6
65 and more	2.5	4.4
Education		
Up to four years	16.0	13.5
Up to six years	50.1	35.8
Secondary	27.7	43.0
University	6.2	7.6
Income		
Less than €500	11.5	19.2
Between €500 and €1000	35.5	42.7
Between €1001 and €2500	24.4	26.6
More than €2500	5.1	11.4

Source: Authors' own survey data.

Examination of the demographic characteristics of the 'before the event' and the 'after the event' samples indicated that there was no significant differences between those two samples in terms of gender and age distribution. However, findings indicated that there were more educated residents and in the extreme income groups ('less than €500' and 'more than €2500') in the 'after the event' sample.

3.2-Factor analysis of the impacts of the 2012 ECOC

Since we had several variables (20) to measure the expected impacts of the 2012 ECOC, an exploratory factor analysis with a principal component method and varimax rotation was conducted to assess the number of underlying factors and to identify the items associated with each factor. Five factors with eigenvalues greater than one were extracted. These factors explained 56.02% of the total variance, as presented in Table 2. The first factor was labelled *Investments and immaterial benefit* and accounted for 22.56% of the variance. It had a reliability alpha of 0.82 with an eigenvalue of 4.51. The second factor, labelled *Economic, social and environmental costs* comprised 6 items (all negative impacts, other than items related to "change the habits" and "change the traditional practices", which constitute the factor four). With an eigenvalue of 2.44, it captured 12.21% of the variance and had a reliability alpha of 0.69. The third factor, named *Safety and infrastructures* explained 9.35% of the variance, with a reliability alpha of 0.64. The fourth factor was related with *Changes in traditional practices and habits*, with 6.55% of variance explained and a reliability alpha of 0.63. With reliability coefficient of 0.57, factor five, namely *Economic and social benefits* accounted for 5.36% of the variance.

Considering the internal consistency of the items within each dimension as measured by examining the Cronbach reliability alphas, these show a high level for factors 1 and 2 but reasonable for factors 3, 4 and 5. In fact, Nunnally (1978) suggests that reliability of alphas close to 0.70 indicate a high level of internal consistency between the individual scale items and the related factors.

Table 2 - Factor analysis for 2012 ECOC expected impacts (N=471)

ECOC impact factors (Reliability alpha)	Loading	Eigen-values	Explained variance	Mean
1: Investments and immaterial benefits (0.82)		4.51	22.56	4.02

Generates more public investment in culture	0.75			
Conserves the built heritage	0.75			
Presents valuation and recovery of traditions	0.75			
Improves the image of the municipality	0.70			
Attracts more investment	0.69			
Improves self-esteem of local population	0.50			
Increases the supply of cultural events	0.44			
2: Economic, social and environmental costs (0.69)		2.44	12.21	3.25
Creates difficulty in parking	0.71			
Increases traffic	0.68			
Increases waste produced	0.68			
Increases crime	0.67			
Raises prices of goods and services	0.48			
Degrades physical and natural environment	0.48			
3: Safety and infrastructures (0.64)		1.97	9.35	3.67
Increases public security	0.79			
Improves local infrastructure	0.68			
4: Changes in traditional practices and habits (0.63)		1.31	6.55	3.12
Changes habits of Guimarães residents	0.83			
Changes traditional practices	0.74			
5: Economic and social benefits (0.57)		1.07	5.36	3.28
Increases the income of residents	0.78			
Creates and/or increases employment	0.60			
Increases quality of life	0.51			
Total variance explained		56.02		

Source: Authors' own survey data.

Notes: Extraction method – Principal component analysis; Rotation method – Varimax with Kaiser normalization;

KMO=0.808; Bartlett's test of sphericity: p=0.00.

3.3-Comparison of the Guimarães residents' perceptions pre- and post-2012 ECOC

After the impact factors were delineated, their mean scores were compared in order to investigate variations in Guimarães residents' perceptions before and after the mega-event (see Table 3).

Table 3 - Comparison of means of ECOC impact factors and items, before and after the mega-event

ECOC impact factors and items	Mean		t-value	Sig.
	Before (n=471)	After (n=551)		

1: Investments and immaterial benefits	4.02	3.87	3.944	0.000
Presents valuation and recovery of traditions	4.02	3.86	3.137	0.002
Conserves the built heritage	4.16	3.97	3.617	0.000
Generates more public investment in culture	4.06	3.87	3.650	0.000
Improves the image of the municipality	4.28	4.19	1.691	0.091
Attracts more investment	4.02	3.81	3.736	0.000
Improves self-esteem of local population	3.86	3.83	0.482	0.630
Increases the supply of cultural events	3.74	3.53	3.846	0.000
2: Economic, social and environmental costs	3.25	3.13	3.074	0.002
Increases waste produced	3.05	2.99	0.824	0.410
Increases traffic	3.68	3.61	1.171	0.242
Increases crime	2.69	2.40	4.177	0.000
Creates difficulty in parking	3.83	3.77	0.984	0.325
Raises prices of goods and services	3.32	3.22	1.498	0.135
Degrades the physical and natural environment	2.94	2.77	2.626	0.009
3: Safety and infrastructures	3.67	3.62	1.274	0.203
Increases public security	3.57	3.49	1.466	0.143
Improves local infrastructure	3.78	3.74	0.657	0.511
4: Changes in costumes and habits	3.12	3.18	-1.156	0.248
Changes habits of Guimarães residents	3.13	3.27	-2.326	0.020
Changes traditional practices	3.11	3.09	0.304	0.761
5: Economic and social benefits	3.28	3.13	3.455	0.001
Creates and/or increases employment	3.57	3.32	4.150	0.000
Increases quality of life	3.32	3.15	2.776	0.006
Increases the income of residents	2.95	2.91	0.618	0.536

Source: Authors' own survey data.

Results of *t*-test indicated that there were significant differences ($p < 0.05$) on two positive impact factors (*Investments and immaterial benefits* and *Economic and social benefits*) and one negative impact factor (*Economic, social and environmental costs*). This means that Guimarães residents expected the 2012 ECOC to generate many economic, social and cultural benefits. Nevertheless, after the mega-event, they realized that 2012 ECOC did not generate as many benefits as they expected.

Respondents also reported a higher mean score on the negative *Economic, social and environmental costs* impact factor before the event than after. This finding suggests that as time passes, residents realized that this mega-event has less costs in the economy and in the community in general, than they supposed.

In order to better understand the variations in impact perceptions of Guimarães residents due to temporal effects, a series of *t*-tests was carried out on 20 impact perception items (also presented in Table 3). The mean scores for all 20 impact perception items for 'before the event' and 'after the event' samples are displayed in Table 3, and as we can see, 10 of the 20 impact items were found to be significantly different between before and after the event assessment of impacts.

Findings indicated that five of the ‘before the event’ *Investments and immaterial benefits* perceptions had significantly higher mean values than ‘after the event’, which suggested that Guimarães residents had high expectations about the immaterial benefits and investments that the 2012 ECOC would bring into their communities, but those expectations were not met. The significantly higher ‘before the event’ *Investments and immaterial benefits* perceptions were ‘conserves the built heritage’ (‘before the event’ $M = 4.16$; ‘after the event’ $M = 3.97$; $t = 3.62$; $p < 0.05$), followed by ‘generates more public investment in culture’ (‘before the event’ $M = 4.06$; ‘after the event’ $M = 3.87$; $t = 3.65$; $p < 0.05$), ‘presents valuation and recovery of traditions’ (‘before the event’ $M = 4.02$; ‘after the event’ $M = 3.86$; $t = 3.14$; $p < 0.05$), ‘attracts more investment’ (‘before the event’ $M = 4.02$; ‘after the event’ $M = 3.81$; $t = 3.74$; $p < 0.05$) and ‘increases the supply of cultural events’ (‘before the event’ $M = 3.74$; ‘after the event’ $M = 3.53$; $t = 3.85$; $p < 0.05$).

In what regards the three items of *Economic and social benefits*, two of these in ‘before the event’ perceptions had significantly higher mean values than ‘after the event’. Residents indicated that 2012 ECOC ‘creates and/or increases employment’ (‘before the event’ $M = 3.57$; ‘after the event’ $M = 3.32$; $t = 4.15$; $p < 0.05$) and ‘increases quality of life’ (‘before the event’ $M = 3.32$; ‘after the event’ $M = 3.15$; $t = 2.78$; $p < 0.05$) less than they expected.

Examining the eight negative impact items, only three of them showed significant differences between before and after the mega-event. Two ‘before the event’ negative perceptions had significantly higher mean values than ‘after the event’, indicating that the costs were lower than their expectations. Before the event, residents expected the crime to increase ($M = 2.69$) and the degradation of physical and natural environment ($M = 2.94$); however, after the event they realized that the increase in crime and the environmental degradation were not as bad as they expected ($M = 2.40$ and $M = 2.77$, respectively).

In contrast to previous studies, where after the events residents realized that they had underestimated some of the costs of hosting a mega-event (Gursoy et al., 2011), only one of those differences in negative items suggested that the expected cost was higher than they anticipated: ‘changes habits’ (‘before the event’ $M = 3.13$; ‘after the event’ $M = 3.27$; $t = -2.33$; $p < 0.05$).

Discussion and conclusions

This study aimed to measure the expected benefits and costs of the Guimarães 2012 ECOC perceived by residents before the mega-event and the perceived benefits and costs after its closure. Also, the study intended analysing if the residents' perceptions changed based on their experience.

As has been highlighted in previous studies (Jeong and Faulkner, 1996; Deccio and Baloglu, 2002; Gursoy and Kendal, 2006; Kim et al., 2006; Gursoy et al., 2011), residents tend to have high expectations about the benefits of hosting a mega-event, although they tend to recognize that some costs will result from it. However, before the mega-event residents tend to evaluate it in a quite more positive way and the post-event allows people to get a much more realistic and less passionate approach to the hosting impacts.

Results gotten confirm some of those findings of previous researches but contradict some others. The decreasing mean values in all dimensions and items, except for 'changes in habits', shows that residents, after the ECOC realized that benefits generated by the mega-event were lower than they expected. But the costs were also overestimated. The perception of negative impacts may have been overestimated as a result of the confrontational atmosphere that was lived in the pre-event period between the Guimarães City Foundation (the structure in charge of planning the event), the City Hall and local cultural associations.

Examining the positive impacts of the mega-event, three positive impacts had the highest mean score: 'improves the image of the municipality' ('before the event' $M = 4.28$; 'after the event' $M = 4.19$), 'conserves the built heritage' ('before the event' $M = 4.16$; 'after the event' $M = 3.97$) and 'generates more public investment in culture' ('before the event' $M = 4.06$; 'after the event' $M = 3.87$). However, the 'after the event' assessment of the positive impacts is lower.

The items 'increases the income of residents' ('before the event' $M = 2.95$; 'after the event' $M = 2.91$) and 'increases quality of life' ('before the event' $M = 3.32$; 'after the event' $M = 3.15$) had the lowest mean score, both 'before' and 'after the event'. These findings are consistent with previous studies, which suggest that residents perceive the events provide a major opportunity for improving the community's overall image but they are much less certain that they personally will benefit from it (Kim et al., 2006; Gursoy et al., 2011).

The highest negative shift between 'before' and 'after' positive impacts perceptions was the ECOC 'creates and/or increases employment' ('before the event' $M = 3.57$; 'after the event' $M = 3.32$, $t = 4.150$; $p < 0.05$; difference = - 0.25), similar to Jeong and Faulkner (1996), Kim et al. (2006), and Gursoy and Kendal (2006) studies but contradicting Gursoy et al. (2011), followed by 'attracts more investment' ('before the event' $M = 4.02$; 'after the event' $M = 3.81$, $t = 3.736$; $p < 0.05$; difference = - 0.21). These findings suggest that residents' expectations about the ECOC providing employment and investment opportunities resulted in disappointment for them. Probably this has to do with the high economic expectations about a cultural event, whose aims were of more cultural nature.

The lowest negative shift between 'before' and 'after' positive impacts perceptions, suggesting that the disappointment was lower in these aspects, were the ECOC 'improved self-esteem of local population' ('before the event' $M = 3.86$; 'after the event' $M = 3.83$, $t = 0.482$; $p > 0.05$; difference = - 0.03) and 'increases the income of residents' ('before the event' $M = 2.95$; 'after the event' $M = 2.91$, $t = 0.618$; $p > 0.05$; difference = - 0.04).

Contradicting other studies, after the mega-event Guimarães' residents realized that costs weren't as high as they expected. Comparison of the negative impacts perceptions 'before' and 'after' revealed that only 'changes the habits of Guimarães residents' changed for the worse after the ECOC. As presented in Table 3, before and after the mega-event residents' concerns were similar: 'difficulty in parking' ('before the event' $M = 3.83$; 'after the event' $M = 3.77$), 'increases traffic' ('before the event' $M = 3.68$; 'after the event' $M = 3.61$), 'raises prices of goods and services' ('before the event' $M = 3.32$; 'after the event' $M = 3.22$), and 'changes the habits of Guimarães residents' ('before the event' $M = 3.13$; 'after the event' $M = 3.27$) were the top four concerns, with only position three and four changing, in the post-event. Probably, in future events local authorities might better manage some of these problems, like parking and traffic congestion, encouraging the use of public transport, specially on certain days.

Residents were least concerned about the negative impacts: 'increases crime' ('before the event' $M = 2.69$; 'after the event' $M = 2.4$, $t = 4.177$; $p < 0.05$; difference = - 0.29) and 'degrades physical and natural environment' ('before the event' $M = 2.94$; 'after the event' $M = 2.77$, $t = 2.626$; $p < 0.05$; difference = - 0.17), either before or after the event, revealing these two impacts the highest shift 'before' and 'after' the ECOC

regarding negative impacts. Similar to Ritchie and Aitken (1984) and Mihalik and Simonetta (1998) researches, Guimarães' residents seems do not regard that crime and environmental damage to be a major concern of mega-events.

Contrary to other studies in which negative impacts are often ignored by political leaders and organizers, not being perceived by residents before the events, in the case of Guimarães, the confrontational atmosphere between the Guimarães City Foundation and local cultural associations and consequent negative news before the event, might have inflated the residents' concerns. The positive impacts, consistent with previous studies, were also inflated as a result of the organizers' advertising campaigns highlighting expected benefits. After the ECOC, residents established new reference point, realizing that the benefits and costs generated were significantly lower than they expected.

Although findings of this study can be a valuable contribution for the planning and management of future mega cultural events, some limitations can be pointed out. The study performed made use of cross-sectional data from two time periods for investigating the influences of temporal effects (something very common in the literature). We recognize that the use of a longitudinal panel of residents would be a better option, but we were not able to implement this approach. Furthermore, data were collected before and after the mega event (a few months after). Instead of collecting data just after the closure of the event, it would be also better to gather it two or three years after it, when costs and benefits can be really full accessed by residents.

References

- Ap, J. (1990), "Residents' perceptions research on the social impacts of tourism", *Annals of Tourism Research*, 17(4), pp. 610-616.
- Ap, J. (1992), "Residents' perceptions research on tourism impacts", *Annals of Tourism Research*, 19(4), pp. 665-690.
- Arnaud, C., Fouchet, R. and Soldo, E. (2010), "The cultural mega event as dismantled system: challenges, stakes and pitfalls of governance. Comparative analysis of European capitalism of culture", *XI Workshop dei Docenti e dei Ricercatori do Organizzazione Aziendale, Incertezza, creatività e razionalità organizzative*, Bologna, 16-18 de Junho de 2010.
- Bramwell, B. (1997), "Strategic planning before and after a mega-event", *Tourism Management*, 18(3), pp. 167-176.

- Cooper, C., Fletcher, J., Gibert, D., Shepherd, R. and Wanhill, S. (1998), *Tourism. Principles and Practice*, 2nd ed., Addison Wesley Longman Publishing, New York.
- Deccio, C. and Baloglu, S. (2002), "Nonhost Community Resident Reactions to the 2002 Winter Olympics: The Spillover Impacts", *Journal of Travel Research*, 41, pp. 46–56.
- Getz, D. (1991), *Festivals, special events, and tourism*. Van Nostrand Reinhold, New York.
- Getz, D. (2008), "Event tourism: definition, evolution, and research", *Tourism Management*, 29, pp. 403–428.
- Goeldner, R. and Long, P. (1987), "The Role and Impact of Mega-Events and Attractions on Tourism Development in North America", *Proceedings of the 37th Congress of AIEST*, chapter 28, pp. 119–131.
- Gursoy, D. and Kendall, K. (2006), "Hosting mega events: modeling locals' support", *Annals of Tourism Research*, 33(3), pp. 603–623.
- Gursoy, D., Chi, C., Ai, J. and Chen, B.T. (2011), "Temporal Change in Resident Perceptions of a Mega-event: The Beijing 2008 Olympic Games", *Tourism Geographies*, 13(2), pp. 299-324.
- Hall, C.M. (1992), *Hallmark tourist events: impacts, management and planning*. Belhaven Press, London.
- Hiller, H. (1990), "The Urban Transformation of a Landmark Event: The 1988 Calgary Winter Olympics", *Urban Affairs Quarterly*, 26, pp. 118–137.
- Jackson, L. (2008), "Residents' perceptions of the impacts of special event tourism", *Journal of Place Management and Development*, 1(3), pp. 240-255.
- Jeong, G. (1998), "Residents' perceptions toward the tourism impacts of the '93 EXPO development on the city of Taejon", *Journal of Tourism Studies*, 18(1), pp. 153–173.
- Jeong, G. and Faulkner, B. (1996), "Resident Perceptions of Mega-Event Impacts: the Taejon International Exposition Case", *Festival Management & Event Tourism*, 4(1), pp. 3–11.
- Jeong, G., Jafari, J. and Gartner, W. (1990), "Expectations of the 1988 Seoul Olympics: A Korean perspective", *Tourism Recreation Research*, 15(1), 26–33.
- Kaiser, S., Alfs, C., Beech, J. and Kaspar, R. (2013), "Challenges of tourism development in winter sports destinations and post-event tourism marketing: the cases

of the Ramsu Nordic Ski World Championship 1999 and the St Anton Alpine Ski World Chamionship 2001", *Journal of Sports and Tourism*, 18(1), pp. 33-48.

Kang, Y. and Perdue, R. (1994), "Long-Term Impact of a Mega-Event on International Tourism to the Host Country: a Conceptual Model and the Case of the 1988 Seoul Olympics", *Journal of International Consumer Marketing*, 6, pp. 205–226.

Kim, H.J., Gursoy, D. and Lee, S.-B. (2006), "The impact of the 2002 World Cup on South Korea: comparisons of pre- and post-games", *Tourism Management*, 27, pp. 86-96.

Kim, S. and Petrick, J. (2005), "Residents' Perceptions on Impacts of the FIFA 2002 World Cup: the Case of Seoul as a Host City", *Tourism Management*, 26, pp. 25-38.

Konstantaki, M. and Wickens, E. (2010), "Residents' Perceptions of Environmental and Security Issues At the 2012 London Olympic Games", *Journal of Sport & Tourism*, 15(4), pp. 337-357.

Kuvan, Y. and Akan, P. (2005), "Residents' attitudes toward general and forest-related impacts of tourism: The case of Belek, Antalya", *Tourism Management*, 26(5), pp. 691–706.

Langen, F. (2008), *Evaluation: Scotland's Year of Highland Culture*, Centre for Cultural Policy Research, University of Glasgow, Glasgow.

Langen, F. and Garcia, B. (2009), *Measuring the impacts of large scale cultural events: a literature review*, Impacts 08 European Capital of Culture Research Programme, University of Liverpool, Liverpool.

Lepp, A. and Gibson, H. (2011), "Tourism and World Cup Football amidst perceptions of risk: The case of South Africa", *Scandinavian Journal of Hospitality and Tourism*, 11(3), pp. 286-305.

Liu, J.C.Y. (2012), "The strategy of city cultural governance: 2009 Kaohsiung world games and globalized city cultural images", *Journal of Leisure Studies*, 10(1), pp. 47-71.

Martins, V. et al. (2004), *Avaliação do impacto Económico do EURO 2004. Relatório Final*, Instituto Superior de Economia e Gestão, Universidade Técnica de Lisboa, Lisboa.

Mason, P. and Cheyne, J. (2000), "Residents' attitudes to proposed tourism development", *Annals of Tourism Research*, 27(2), pp. 391–411.

Mihalik, B. J. and Simonetta, L. (1998), "Resident perceptions of the 1996 Summer Olympic Games – Year II", *Festival Management and Event Tourism*, 5(1), pp. 9–19.

- Mills, B.M. and Rosentraub, M.S. (2013), "Hosting mega-events: a guide to the evaluation of developments effects in integrated metropolitan regions", *Tourism Management*, 34, pp. 238-246.
- Nunkoo, R., Gursoy, D. and Juwaheer, T. (2010), "Island residents' identities and their support for tourism: An integration of two theories", *Journal of Sustainable Tourism*, 18(5), pp. 675-693.
- Nunkoo, R., Smith, S.L.J. and Ramkissoon, H. (2013), "Residents' attitudes to tourism: a longitudinal study of 140 articles from 1984 to 2010", *Journal of Sustainable Tourism*, 21(1), pp. 5-25.
- Nunnally, J. (1978), *Psychometric theory*. McGraw-Hill: New York.
- Palonen, E. (2011), "European Capitals of Culture and the limits of the urban effects in Luxembourg and Sibou 2007", *Revista Brasileira de Gestão Urbana*, 3(2), pp. 245-256.
- Poria, Y., Butler, D. and Airey, D. (2003), "The core of heritage tourism", *Annals of Tourism Research*, 30(1), pp. 238-254.
- Quinn, B. (2013), *Key concepts in event management*, London, Sage Publications.
- Rátz, T. and Puczko, L. (2002), *The impacts of tourism. An introduction*. Hämeenlinna: Häme Polytechnic.
- Remoaldo, P.C., Duque, E. and Cadima Ribeiro (2014), "The environmental impacts perceived by the local community from hosting the '2012 Guimarães European Capital of Culture'", *Ambiente y Desarrollo*, 17(34), 15 p. (forthcoming).
- Ritchie, J.R.B. (1984), "Assessing the Impact of Hallmark Events: Conceptual and Research Issues", *Journal of Travel Research*, 23(1), pp. 2-11.
- Ritchie, J. R. B. and Aitken, C. E. (1984), "Olympulse I: The research program and initial results", *Journal of Travel Research*, 22(1), pp. 17-25.
- Ritchie, B. and Hall, M. (1999), *Mega Events and Human Rights, research note*. <http://www.ausport.gov.au/fulltext/1999/nsw/p102-115.pdf> (accessed 20th February 2014).
- Ritchie, B.W., Shipway, R. and Cleeve, B. (2009), "Resident perceptions of mega-sporting events: A non-host city perspective of the 2012 London Olympic Games", *Journal of Sport & Tourism*, 14(2), pp. 143-167.
- Roche, M. (1994), "Mega-Events and Urban Policy", *Annals of Tourism Research*, 21(1), pp. 1-19.
- Roche, M. (2000), *Mega-events and modernity*. Routledge, London.

- Santos, M.L.L. (Coord.) (2002), *Públicos da Porto 2001*. Observatório das Artes Culturais, Lisboa.
- Soutar, G., and McLeod, P. (1993), “Residents’ perceptions on impact of the America’s Cup”, *Annals of Tourism Research*, 20(3), pp. 571-582.
- Strauf, S. and Scherer, R. (2010), "The contribution of cultural infrastructure and events to regional development", *50th Congress of the Regional Science Association*, Jönköping, Sweden, 19th to 23rd August.
- Turco, D. (1998), “Host residents’ perceived social costs and benefits toward a staged tourist attraction”, *Journal of Travel and Tourism Marketing*, 7(1), pp. 21–30.
- Universidade do Minho (2012a), *Guimarães 2012: Capital Europeia da Cultura. Impactos Económicos e Sociais*. Relatório Intercalar, maio de 2012, Fundação Cidade de Guimarães, Guimarães.
- Universidade do Minho (2012b), *Guimarães 2012: Capital Europeia da Cultura. Impactos Económicos e Sociais*. Relatório Intercalar, outubro de 2012, Fundação Cidade de Guimarães, Guimarães.
- Universidade do Minho (2013a), *Guimarães 2012: Capital Europeia da Cultura. Impactos Económicos e Sociais*. Relatório Intercalar, fevereiro de 2013, Fundação Cidade de Guimarães, Guimarães.
- Universidade do Minho (2013b), *Guimarães 2012: Capital Europeia da Cultura. Impactos Económicos e Sociais*. Relatório Executivo, Fundação Cidade de Guimarães, Guimarães.
- Vareiro, L., Remoaldo, P.C. and Cadima Ribeiro, J. (2013), “Residents’ perceptions of tourism impacts in Guimarães (Portugal): a cluster analysis”, *Current Issues in Tourism*, 16(6), pp. 535-551.
- Waite, G. (2003), “The social impacts of the Sydney Olympics”, *Annals of Tourism Research*, 30(1), pp. 194–215.