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Economic impact of a religious and tourist event: a Holy Week celebration

Víctor Lafuente Sánchez[a], María Devesa Fernández[a], and José Ángel Sanz Lara[a]

[a] Universidad de Valladolid

Abstract

Holy Week is one of the most important traditional celebrations in many parts of the world. It has a deep-rooted cultural and social tradition, yet also embraces a tourist dimension which ultimately impacts on the economy of the places where it is held. The present work seeks to explore the impact of Holy Week on the city of Palencia (Spain). To do this, an economic impact study based on a description and evaluation of three types of effect, direct, indirect and induced, is carried out. Results show that this event generated a total of 2.258 million Euros, of which 82% remained in the economy of the city itself, with the hotel and restaurant sectors benefitting the most. This traditional celebration thus contributes to creating revenue and employment, to maintaining traditional industries, to preserving cultural heritage, and to enhancing the area's image and projection.

Keywords

Holy Week, tourism, religion, economic impact, input-output multipliers

Today, events play a key role in our culture (Allen *et al*, 2005). Throughout history, events have been an important feature of people's lives, yet what has changed in recent years is the frequency with which they are taking place, the themes involved and where they are being held (Saayman and Saayman, 2004). Their attractiveness derives from the innate uniqueness of each event, which differentiates them from fixed attractions, and the atmosphere surrounding them, which lifts them above everyday life (Getz, 1989). Together with customs and traditional cultural events that are rooted in history, there are now numerous festivals devoted to contemporary forms of culture. They all have their own unique and particular origin, objective and appeal, yet all share the idea of celebration and festiveness and seek to turn daily life into a special occasion (Waterman, 1998).

The number of festivals and cultural events has grown significantly in recent years, and represents one of the most dynamic and interesting phenomena in the present-day cultural scene (Devesa *et al*, 2015). These celebrations not only increase the supply of available arts in the area in question –generating opportunities for culture, leisure and entertainment for the local population–but also act as a magnet to attract tourists interested in the place, the celebration itself and what this has to offer as well as what it means (Jaeger and Mykletun, 2013). As a result, festival and event tourism has spread over the last few years and has become an important area of the market (Getz, 2008; Mathiou *et al*, 2014). As such, it has aroused the interest of cultural, tourist and local development managers (Feldestein and Fleischer, 2003; Chirieleison *et al*, 2013), as a consequence of the excellent opportunities as well as the cultural, social and economic benefits it

generates (Dwyer *et al*, 2000; Saayman and Saayman, 2004, 2006; Li and McCabe, 2012; Chirieleison *et al*, 2013).

Holy week –the Christian celebration of the Passion and Death of Christ–is one of the popular events to boast the longest-standing tradition in Spain and other parts of the world. Whilst retaining its religious character and its underlying social dimension, said tradition also has a notable cultural and artistic dimension–reflected through its sculptures, processions and how it is staged–not to mention its ever-increasing appeal to tourists who spend money in the area. The economic impact is thus also a key factor: this cultural event generates economic activity, income and employment wherever it is held, thereby contributing to the productive fabric and to the creative industries as well as crafts in the area.

The present article seeks to explore the economic impact of the celebration of Holy Week, an important element of the cultural heritage. To achieve this goal, the Economic Impact Studies method is applied, based on the definition and evaluation of three kinds of effects (direct, indirect and induced), this requiring the use of a range of techniques and sources of information. Our case study is focused on the Holy Week celebration in the city of Palencia (Spain) in 2012, an event declared to be of International Tourist Interest by the national government at the end of the same year.

The main contributions that the work seeks to make are as follows. Firstly, the originality of the case study, taking into consideration the scarcity of analyses exploring the economic impact of a traditional celebration and the importance of this element of the cultural heritage. Secondly, the complexity of the case study, since it is a cultural event that embraces religious, cultural, social and tourist elements that shape the economic dimension to be analysed. Thirdly, the range of actors involved in celebrating and enjoying the event, which complicates any examination of the economic impact and in turn poses a research challenge, and finally, the analysis's rigour and exactitude, which avoid overestimating the flows generated by the event.

The article is structured in four sections. Section 1 deals with the theoretical framework and methodology of economic impact studies. Section 2 addresses the empirical application. Section 3 presents the results, distinguishing among direct, indirect, induced and total impacts of the analysed event. Section 4 finalises with the discussion and main conclusions.

Economic impact of cultural events: methodology and background

Economic impact studies (EIS) seek to estimate the economic importance of the arts and to explore activity flows and the income linked to the existence of a given cultural expression (Martinello and Minnon, 1990). The underlying goal of such studies is to measure the economic effects to emerge from a cultural activity, organisation or event on a given area over a given period. They thus aim to bring to light the major flows of income generated by the activity on the local or regional economy (Devesa *et al*, 2012) and in sum to answer the question "If the activity did not exist, what would the loss of revenue to the area have been?" (Snowball, 2013). Such a loss is closely linked to the visitors who would stop coming, reflecting the fact that the economic impact of events and festivals is basically, although not exclusively, one of tourism.

Economic Impact Studies tend to adopt a common methodology, although differences do exist between one application and another. Broadly speaking, three kinds of effect or impact exist[1] (Seaman, 2003):

a) *Direct effects*, or the cultural institution's expenditure analysed in terms of salaries, purchases or other items. These are measured through the institution's budget, in other words through an accounting analysis of income and expenses.
b) *Indirect effects*, or audience expenditure resulting from cultural consumption. These tend to be estimated through surveys among attendees in which the latter are asked about how much they expect to spend.
c) *Induced effects*, or the above-mentioned expenses spillover effects on local or regional productive fabric through the multiplier concept.

There are alternative approaches to the definitions adopted here. Nevertheless, and despite the differences in the definitions, all EIS follow a common pattern, since they analyse the arrival of "new money" in the area and how the latter spreads throughout the economy. New money comes in mainly thanks to the visitors who are motivated by the event, as well as by the organisers who support and finance it. Impact is measured through an economic model, normally input-output analysis or general equilibrium models (Jago and Dwyer, 2006).

Thus, economic impact studies do not prove particularly complex from the conceptual standpoint, (Wilson and Nickerson, 2006), but do entail certain technical difficulties that need to be approached with caution and rigour, if overestimating the impact of the activity analysed is to be averted (see Crompton, 2006; Saayman and Saayman, 2006; Tyrrell and Johnston, 2006).

The main caveat in the case of *direct effects* is to separate expenditure inside the area of reference from expenditure outside it so as to allocate it correctly to the study domain. Hence the importance of clearly delimiting the study area (Crompton, 1995).

Broadly speaking, the *indirect effects* derive from multiplying the number of attendees by the spending per attendee. Yet this is the category which requires the most clarifications–which in turn depend on the case study–and in which the greatest technical difficulties are involved (Devesa, 2006; Herrero *et al*, 2006).

- Firstly, including in the accounts any items of expenditure that are already recorded in the previous section should be avoided, so as to avert the problem of double counting and overestimating the economic impact (Devesa, 2006). Likewise, only money spent in the area of reference should be taken into account, as in the case of direct effects.
- Secondly, measuring the expenditure of attendees from outside the area of reference (visitors) is also necessary. This is termed "visitor additionality" (Wanhill, 1993). From the economic perspective, local resident expenditure is not considered as net money coming into the area but rather a redistribution in demand composition (Seaman, 1997). Put differently, were the event not to be held, local spectators' money would not be lost (it would be spent on other things), but the money from spectators from outside the city would be lost as they would not come. However, should local

spectators decide to stay in the area because the event is being held and should they state that they spend more because of this, then it would be considered as having an impact on the reference area (Crompton, 2006; Snowball, 2008; Bowitz and Ibenholt, 2009). This is referred to by certain authors as *retained expenditure*, and does have to be taken into account (Crompton, 2006; Jago and Dwyer, 2006).

- Thirdly, expenditure which is actually attributable to the cultural activity must be determined, such that visitors should be asked about the reason for their visit (Heilbrun and Gray, 1993; Stanley *et al*, 1998). In this sense, spending by so-called *casuals* should be avoided, in other words people who would have gone to the place anyway, regardless of the event and whose spending should not be taken into account in the economic impact study (Crompton, 1995; Matheson, 2006).
- Fourth, it is important to know the number of people taking part in the cultural activity, an extremely complex matter when dealing with open air events, in open spaces where tickets do not have to be purchased, and when dealing with cultural events that involve several activities and venues. Calculating spectator capacity is key if overestimating the impact is to be averted[2] (Crompton *et al*, 2001; Tyrrell and Ismail, 2005).
- Fifth, and related to the above, the number of attendees does not represent the number of individuals involved; therefore, "attendance must be factored down to the number or individuals by dividing by the average number of attendees per person" (Jago and Dwyer, 2006).

Finally, in most impact studies, *induced effects* are defined as the spillover effects on the local or regional economy of the previously mentioned effects measured through input-output multipliers taken from economic Input-Output Tables. The main difficulties include the lack of multipliers at a local and sometimes regional scale, as well as the difficulties and limitations inherent in Input-Output Analysis (IOA)[3].

Studies of this kind have numerous and wide-ranging applications. These include the area of education (Elliot *et al*, 1988; Martin, 1998; Siegfried *et al*, 2007), tourism (Archer and Fletcher, 1996; Yu and Turco, 2000) and particularly sport, with a large number of studies having been conducted into sports events. Amongst these are the works of Crompton (1995), Gelan (2003), Baade and Matheson (2004), Saayman and Saayman (2012) or Huang *et al* (2014).

In the domain of culture, economic impact studies have been devised particularly for festivals and events, but also for museums, exhibitions or heritage sites. Prominent amongst the latter are the works of Kim *et al* (2007), Murillo *et al* (2008), Çela *et al* (2009), Bracalente *et al* (2011) and Guggenheim Museum Bilbao (2012).

In the case of festivals and events, examples vary and there are applications to all kinds of festivals, geographical contexts and sizes of events. Given their interest, scientific rigour or findings, prominent works include the works of Mitchell (1993), Stanley *et al* (1998), Devesa (2006), Herrero *et al* (2006), Saayman and Saayman (2006) and BOP Consulting (2011). In the specific case of religious events, attention might be drawn to the study exploring the impact of Holy Week in Seville, Spain (Palma *et al*, 2014), the Pope's visit to

Santiago de Compostela (Spain) in 2010 (Barajas *et al*, 2014) or pilgrimage in South Africa (Saayman *et al*, 2014)

Despite the large number of case studies carried out, the technical difficulties mentioned earlier as well as the lack of accuracy in certain practical applications and other limitations in economic impact studies (such as the fact that they only take account of the benefits but not the cost involved in organising the activity) have led to a number of criticisms as well as alternative valuation methodologies being proposed (Gazel and Schwer, 1997; Seaman, 2003). Contingent Valuation Studies in the field of culture (see, for example, Navrud and Ready, 2002; Sanz *et al*, 2003), General Equilibrium Studies in the field of tourism (see, for instance, Zhou *et al*, 1997; Narayan, 2004; Dwyer *et al*, 2006) and "in-scope" studies (studies focusing on the "new expenditure") in the case of conventions (Jago and Dwyer, 2006; Edwards *et al*, 2014). However, today there is so much literature addressing economic impact studies that it is possible to overcome the main difficulties such analyses entail (Archer, 1982; Getz, 2008).

In sum, and despite the limitations, interest in economic impact studies is based on the fact that they can prove to be an extremely useful tool to measure the relative weight of a cultural activity in the economy in question, and can even favour investment in cultural management or development (Bowitz and Ibenholt, 2009). One additional benefit is that an understanding may be gained of culture's impact on the various sectors of the economy, pointing to which areas require future public or private investment. Likewise, these studies provide insights into different visitors' spending patterns, which may again prove useful in the management and marketing of the areas in question (Snowball, 2013).

Applying economic impact analyses to our case study, Holy Week, entails certain particularities resulting from the nature of the event –a traditional cultural celebration in which many actors are involved, an event lasting several days and which is held at various outdoor locations–, in addition to posing a research challenge.

Empirical application

Case study

Holy Week is the annual Christian commemoration of the Passion, Death and Resurrection of Christ. It is an event with a long tradition which, in most town and cities in Spain, is celebrated through processions and other religious acts that are deeply rooted amongst the inhabitants. It is a traditional cultural and religious event, but which also has a cultural and artistic side to it, a very strong social identity and a tourist appeal that subsequently generates economic activity.

Holy Week celebration comprises three basic elements:

- Brotherhoods: associations of people brought together through charity or a sense of companionship and who pursue religious goals. The principal goal of these brotherhoods is to organise the Holy Week processions in which the life of Christ is represented.
- Images: sculptural representations of the moments of the Passion and Death of Christ.

- Processions: a succession of religious images escorted by the members of the brotherhoods. The aim of the processions is to accompany the sacred images in prayer, sacrifice and austerity. The processions may include liturgical acts, prayer, performances, meetings or singing of any kind.

The brotherhoods and their members are the main "actors" in the Holy Week celebration, thus becoming the event's own supply and demand. On the one hand, the brotherhoods organise the event. They are mainly funded through the subscriptions of members as well as public and private contributions from various administrative bodies and firms. The members of the brotherhoods take part in organising the event, march in the processions, attend religious acts, and also watch as spectators in other processions. For the study in hand, we must distinguish between two types brotherhood members:

- active members: who take part in some procession
- non-active members: the remaining brotherhood members who do not march in any of the processions but who do attend as members of the public

Holy Week in 2012 was held between Saturday 31 March and Sunday 8 April. In the city of Palencia –located inland in North-west Spain–, a total of 15 processions were held in addition to other religious acts, all of which drew 110,453 people. The goal of the current research is to analyse the impact of this celebration on the local economy.

Sources of information and calculation of capacity

In order to achieve the goals set out, three different types of survey were devised, focusing on gaining an insight into attendees' social and economic characteristics together with other aspects of interest. Firstly, a survey was carried out amongst the brotherhoods in the city –nine in all–, wherein they were asked about the finances of their organisations (revenue and expenditure) so as to calculate the direct effects.

Secondly, a survey was conducted amongst the members of the brotherhoods to determine how much they spent and the number of processions they attended, together with other matters of interest. Even though the spending of the brotherhoods is not taken into account since they are local spectators, the survey does allow the number of brotherhoods attending the processions as members of the public to be calculated (non-active members), thus enabling –once these have been discounted–the total number of locales attendees and the so-called retained expenditure to be calculated. The surveys were distributed amongst the various brotherhoods who in turn handed them out to the members of the brotherhoods. A total of 260 surveys were conducted.

Thirdly, a survey was carried out amongst those attending. In this case, 508 surveys were conducted (223 with residents and 285 with visitors)[4] at different places of tourist and cultural interest around the city of Palencia. The surveys amongst visitors were also conducted at various hotels which lent their support to the study. Field work was conducted during Lent and Holy Week in 2012.

To estimate the indirect effects of Holy Week in Palencia, it is necessary to know the total number of those attending the 2012 processions (calculating the capacity). In order to count the number of attendees, street

capacity was estimated in terms of rows of spectators, assuming a lineal and static capacity of two spectators per metre. This meant that, once the length of the street was known, the hypothetical number of people lining each side of the street could be worked out. The field work thus consisted of observing "in situ" the whole route of the various processions, establishing a coefficient for each street (or section of street) so as to link the theoretical and hypothetical capacity with the actual number of people present (Table 1).

Table 1 around here

As a result, the number of spectators attending the Holy Week processions and celebrations in 2012 was 110,453 people, a figure which will be used to calculate the economic impact. This number is important, since it is used to obtain the number of those attending each type: members of the brotherhoods, visitors and residents.

Results

Direct effects

Direct effects refers to expenditure in the area of reference of those who "produce" the cultural good: on the one hand, the brotherhoods, the organisers of the event, and on the other, the brotherhood members, who spend individually to take part in the event, with money being spent on having the robes made, maintained and cleaned as well as acquiring accessories, etc.

The data, obtained from the brotherhoods themselves and from the survey conducted amongst the members, are shown in Table 2.

Table 2 around here

As can be seen, the brotherhoods spent 257,430 Euros in the city of Palencia which, added to the 110,112 Euros spent by the brotherhood members individually amounts to just over 367,542 Euros direct economic impact.

Indirect effects

Indirect effects refers to expenditure by those attending the event, and more specifically by two kinds of spectators: visitors attracted by the cultural event and local residents who stay in the city during Holy Week and who spend more than they would otherwise. In order to calculate indirect effects, which we detail below, it is essential to determine the number of people in each group.

a) Visitor spending

The number of visitors to the city was calculated using the information on the number of hotel establishments, hotel occupation rates and data on type of accommodation used taken from the survey carried out amongst visitors.

To study expenditure, a distinction was made between three groups of visitors:

- Tourists paying for accommodation: these are tourists in the true sense of the term, as they stay in the city overnight.
- Tourists who do not pay for accommodation: these are generally "false visitors", people originally from Palencia who work elsewhere and who return to the city for Holy Week and who therefore stay in their own houses or with friends or relatives.
- Day trippers: these are visitors who come to Palencia and its Holy Week for a few hours but who do not stay in the city overnight.

According to the National Institute of Statistics Survey on Hotel Occupation, the city of Palencia offered accommodation for 979 people in April 2012. According to the same survey, the mean hotel occupation rate that month was 59.49% at weekends and 38.93% the rest of the week. In addition, according to the data provided by the hotel establishments themselves, hotel occupation rates during the main days of Holy Week reached a peak of 70.70%. All of this gives a result of 5,075 overnight stays during Passion Week, as can be seen in Table 3.

Table 3 around here

Based on the number of overnights stays, and knowing from the survey that each visitor who stayed at a hotel establishment in Palencia spent an average of 2.69 nights, we see that 1,887 visitors stayed at hotels in Palencia during Holy Week.

We can thus infer how the remaining visitors would be distributed depending on the proportions given by the survey and the type of visitor (Table 4).

Table 4 around here

As a result, the total number of visitors was 3,573. Of these, 8.79% stated they had not seen any of the scheduled processions such that they are excluded from the study. We can therefore consider the number of visitors taking part in the Holy Week celebration to be 3,259. This is the figure we will work with.

Thus, prior to addressing the issue of visitor expenditure in their visit to Palencia, visitors were asked about the reasons for their trip so that said expenditure, and therefore the impact it generated, could be computed. They were asked to choose among the following options:

- Option A: Holy Week is the main reason for your visit to Palencia.
- Option B: Holy Week is one of the reasons for your visit to Palencia.
- Option C: Holy Week has nothing to do with your visit to Palencia.

If we combine the answer given for motivation with the type of visitor, we obtain the following visitor distribution (Table 5).

Table 5 around here

We can compute, in methodological terms, the total expenditure of visitors for whom the processions in Palencia were the main motivation for their visit. For those for whom the processions were one of the reasons

for their trip to the city, we only consider half of their expenditure (50%). Said option is a convenience decision, a mean, since it is difficult to allocate an exact percentage of spending.[5]Finally, money spent by visitors who, even though they saw a procession, stated that Holy Week was not among their reasons for the trip, is not taken into consideration.

As can be seen in Table 6, mean tourist expenditure differs depending on typology and motivation for the trip. There are also differences in the number of days and nights they spend in the city (Table 7).

Table 6 around here

Table 7 around here

Based on mean daily expenditure, the number of days and nights spent, and the motivation (option to travel), we can now calculate total visitor expenditure linked to Holy Week. For each category of expenditure, we multiply mean expenditure by the number of nights (accommodation) or days (the remaining categories), by the number of different people and by motivation. The sum of the expenditure of Option A visitors plus 50% of the expenditure of Option B visitors gives us the total expenditure by category.

$$\text{Expenditure}_i = [\text{Expenditure}_i \times \text{no. of days (nights)} \times 1]_{\text{Option A}} + [\text{Expenditure}_i \times \text{no. of days (nights)} \times 0.5]_{\text{Option B}}$$

The results are shown in Table 8. As can be seen, visitors spent a total of 502,597 Euros in the city, prominent amongst which was spending on meals (35.69%) and accommodation (29.55%).

Table 8 around here

Finally, it should be pointed out that each visitor saw an average of 2.96 processions, such that the 3,259 visitors would equate to a total of 9,655 spectators, out of the total number calculated of 110,453.

b) Residents' expenditure

Prior to calculating resident expenditure actually attributable to Holy Week, we must first know the number of different people who took part in the 2012 processions as spectators. In this sense, if we take the initial total of 110,453 spectators and subtract visitors (9,655) and non-active brotherhood members (10,179)[6], we are left with the number of spectators corresponding to the group of residents, which comes to 90,619. According to the survey conducted amongst residents, each resident saw an average of 5.39 processions, which would give 16,817 different people (see Table 9).

Table 9 around here

In addition, it should also be remembered that EIS only take account of the expenditure of visitors from outside the area of reference, since local spectator spending is not considered net income and does not therefore impact on the area. Yet, if local residents remain in the city due to the event and state they spend more than usual because of it, then it does have to be deemed as having an impact on the local economy. This is so-called retained expenditure, as pointed out earlier.

As a result, residents were asked about why they had stayed in Palencia during Holy Week and had not opted to travel.[7] Three options were given in the survey:

- Option A: Holy Week is the main reason for staying in Palencia during this period.
- Option B: Holy Week is one of the reasons for staying in Palencia during this period.
- Option C: Holy Week has nothing to do with staying in Palencia during this period.

They were also asked whether staying because of Holy Week led to them spending more. We are thus able to determine the number of residents who fall into each of the previously established subgroups, and which are reflected in Table 10.

Table 10 around here

In this case, we can only compute expenditure by those who state that the event has influenced their spending, and who also declare that staying in the city is due wholly or partially to the event: 3,922 and 2,788 people, respectively. In the first instance, we compute 100% of the expenditure and in the second, 50%, as it was done in the case of visitors.

Thus, knowing the mean expenditure per concept during Holy Week –segmented by type of resident– and the number of local residents, we can estimate how much the latter spent (Table 11).

Table 11 around here

In sum, indirect effects –sum of visitor spending, members of the brotherhoods as spectators and local residents– come to 826,185 Euros (Table 12).

Table 12 around here

Induced effects and total impact

The induced effects are the spillover effects of direct and indirect expenditure on the local economy, measured through the multiplier concept, a common tool in EIS and one suited to small and medium-sized events (Jago and Dwyer, 2006). To calculate these, multipliers taken from the Castilla y León regional Input-Output Tables for 2009, the latest available, were used. Given the lack of any multipliers at a local and/or provincial scale, we assume a productive structure in the city of Palencia similar to that in the region as a whole[8]. We therefore consider the induced effects to be an approximation to these.

To calculate the induced effects, the direct and indirect effects have been reorganised into expenditure categories and the closest sectoral multipliers have been applied (see Table A.1. of the Appendix). The results are detailed in Table 13.

Table 13 around here

Put differently, Holy Week generates a direct effect of 367,542.70 Euros and an indirect effect of 826,185.47 Euros. This carries over into a net induced effect of 1 064,885.95 Euros, giving a total of 2 258,614.12 Euros, which would be the total economic impact for 2012 (Table 14).

Table 14 around here

The total effect highlighted is the effect on the economy as a whole. The Castilla y León Input-Output Tables for 2009 do not distinguish between intraregional and extra-regional flows, such that the multipliers we have applied are not local but total multipliers, and reflect both the effect on the region as well as on the rest of the national economy and even abroad.

In order to confine the total effect of Holy Week to the city of Palencia as far as possible, we posit a working hypothesis based on the year 2000 Input-Output Tables which did distinguish between intra-regional and extra-regional flows. According to the study by Herrero *et al* (2006), the general multiplier for the service sector derived from these tables (the closest to overall expenditure for our case study) was 1.2726 for the region, 1.4675 for Spain, and 1.5597 for the economy as a whole. As a result, if we consider that for the total multiplier the effect on the economy overall is 100%, the impact on Spain would be 94.09%, and 81.59% for Castilla y León (Palencia). In sum, we allocate 81.59% of the economic impact to the city of Palencia.

Thus, applying said percentage to the data obtained previously, we observe that the total effect of Holy Week on the city of Palencia comes to 1.84 million Euros, a figure closer to the actual impact of this traditional celebration on the local economy (Table 15).

Table 15 around here

Discussion and Conclusions

Fairs, traditional celebrations and festivals are special events with a key cultural component, and which play a significant role both in the life of a community and its economic development. Holy Week, the Christian celebration of the Passion and Death of Christ, is a traditional religious celebration and a historical event containing a high cultural and artistic value. Nevertheless, it is also an event with a deep social factor as well as being one of growing tourist importance having an impact on the city's economy and generating income and employment.

The present research seeks to measure the economic impact of Holy Week in the city of Palencia (Spain) –an event declared to be of International Tourist Interest– using the methodology of economic impact studies, based on the evaluation of three types of effects. Thus, the direct effects amount to 367,542 Euros; indirect effects account for an expenditure of 826,185 Euros; and induced effects come to a further 1 064,885 Euros in the economy. In sum, Holy Week in Palencia generated 2 258,614 Euros in 2012, of which almost 82% remained in the city itself. In other words, the impact on the city of Palencia amounted to 1 842,882 Euros.

To a large extent, the impact depends on the event's tourist appeal. To a greater or lesser degree, 3,259 visitors were drawn to the city by the Holy Week event, which also led over 6,700 local residents to remain in the city rather than go elsewhere for their holidays, during the Easter bank holiday period in Spain.

The sectors to benefit most are the hotel and restaurant industry, in other words the city's tourist industry, which absorbs 47.36% of the impact. However, there are other sectors that also benefit such as retail trade

or certain manufacturing industries related to the items used by the brotherhoods, the robe making sector, precious metal craftwork, etc, which account for 25.67% and 5.84% of the total impact, respectively.

The economic impact of this traditional event is relatively small, particularly when compared to other religious celebrations such as Holy Week in Seville (see Palma *et al*, 2014), which is one of the largest and most deeply-rooted celebrations in Spain. No data exist on the city's GDP, although it would seem to account for barely 0.05% of provincial GDP. There is, moreover, a "short radius" effect in the sense that the impact mainly occurs in the city and gradually diminishes the further away we move from the central area where expenditure is concentrated, as occurs in other events, particularly local events and festivals (Devesa *et al*, 2012). Yet, it is no less important as a result, since it is a cultural event which contributes to the area's productive fabric, helps to maintain certain trades and long-established crafts, attracts religious-cultural tourism and generates a positive image that can in future draw fresh tourism flows.

Another fact worth highlighting is how viable this traditional celebration is. Contributions to Holy Week from public institutions (30,209 Euros in 2012) represent a small part of the required investment (only 8.22%). Taking account of the final outcomes, it can indeed be said that for each Euro of public money invested, there was a direct impact on the city of some 61 Euros, plus a further near 14 Euros on the economy as a whole. As a result, we may conclude that Holy Week is an expression of culture that depends very little on public funding compared to what is usually found in this domain. This is a major difference between traditional celebrations and other types of cultural events and festivals, particularly those which are largest and prove most appealing to tourists. In this sense, small festivals usually involve very little in the way of expenditure and infrastructure, and are able to operate with a number of volunteers, meaning a substantial return is earned on a relatively small financial outlay (Saayman and Saayman, 2004).

Yet, as pointed out, the viability, economic impact, or long-term financial repercussions of a cultural event such as this are not the only or the most important. The social and cultural dimension of traditional celebrations and, therefore, the benefits they generate to societies and their culture should not be overlooked. Such factors include: contributing to an area's identity, improving social cohesion, preserving and revitalising its traditions, the educational role it plays, conserving art, bringing life to the city, or contributing to social capital (cooperation, a feeling of belonging, social networks, connectivity, etc.). Likewise, events and festivals can enhance the image of the area, its competitiveness and tourist appeal in the medium and long term. In this sense, holding a festival might indicate to visitors, people or to business that the area is rich in cultural amenities and quality-of-life attributes (Feldestein and Fleischer, 2003).

Limits and future research

Failure to explore these areas may thus be deemed one limitation of our study and, in particular, seen as a future challenge, as is devising and applying indicators to gauge the social and cultural impact of cultural events, and even the environmental effects. To achieve this, approaches such as the "triple bottom line" (Hede, 2007; Getz, 2008) or "commensurability" techniques (Andersson and Lundberg, 2013) may be used.

Moreover, the research has had to face the usual obstacles linked to input output analysis: on the one hand, the strong hypotheses the method works with, and on the other the lack of any multipliers at a local or at least provincial scale. As a result, we cannot consider the spillover effects as being more than an approximation to the induced effects.

Finally, with regard to an event such as this, which is relatively small but which involves a whole city, its inhabitants and many of its areas, it would also prove important to analyse the costs incurred, particularly by the public authorities charged with traffic and crowd control as well as public safety. A cost-benefit analysis of the event is also posited as a further future challenge or, at least a more exhaustive analysis of the negative externalities the event might generate or the opportunity costs.

Appendix

TABLE A.1. Multipliers used by sector of activity

Multiplier	Activity sector	Value
06	Production and distribution of electricity and gas	2.445230
20	Publishing and graphic arts	2.812506
30	Furniture and other manufacturing industries	3.030299
32	Construction	2.359491
34	Wholesale trade and intermediary sector	1.758167
35	Retail trade; repair of personal belongings	1.599445
36	Hotels and restaurants	2.009559
37	Transport	1.848244
39	Postal service and telecommunications	1.503292
43	Real estate activities	1.346668
55	Non-market health and social services	1.360577
57	Non-market recreational and cultural activities	1.955592

Source: Regional Government of Castilla y León (2013)

Notes

[1] See for instance, Dwyer *et al* (2000), Murillo *et al* (2008), Snowball (2013).

[2]For further details on methods for determining the total number of attendees, see Jago and Dwyer (2006).

[3]The input-output method evidences a number of limitations, yet does give an idea of the impacts caused –in the various rounds of spending– of money coming into a given area. These include hypotheses that are so strong that they establish the Input Output Tables on relations between sectors, the existence of excess productive capacity, price invariability, etc. They do, however, prove to be a valuable tool for analysing the impact of tourism (Archer, 1882). For a more thorough review of IOA and its limitations, see Gazel and Schwer (1997), Uriel (1997), Muñoz (2000), Dwyer *et al* (2005), Saayman and Saayman (2006).

[4] The sampling errors of the three surveys carried out are: members of the brotherhoods ±5.69%, residents ±6.55% and visitors ±5.57%.

[5] This criterion is common in economic impact studies in the field of culture (see for instance, Stanley *et al* (1998), Herrero *et al* (2006), Devesa *et al* (2012), Palma *et al* (2014). There are, however, other alternatives, as shown in Wanhill (1993).

[6] In order to determine the number of local spectators, we have subtracted from the total number of attendees not only visitors but also brotherhoods who take part in the processions as members of the public (non-active members), and who were surveyed separately. Brotherhoods members are a very specific group of spectators: they are local residents who are particularly involved in the event but whose spending, strictly speaking, cannot be considered as a net entry of money. In this sense, knowing that the number of non-active brotherhood members who attended processions amounted to 2,125 and that they saw an average of 4.79 processions, we have a total of 10,179 spectators in this group (see Table 2).

[7] It should be remembered that Holy Week is a holiday period in Spain.

[8]This is one limitation of the study. Nevertheless, given the productive structure of the region (which has quite an important agricultural sector and which extends over a wide rural area due to the geographical distribution of the population) the city of Palencia–which has a productive structure based on services and industry– might have multipliers that are above the mean for the region.

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Tables

TABLE 1. Number of spectators by days

Day	Spectators
Saturday before Palm Sunday	5,790
Palm Sunday	15,861
Holy Monday	5,420
Holy Tuesday	5,507
Holy Wednesday	12,202
Holy Thursday	25,161
Good Friday	21,790
Holy Saturday	15,412
Easter Sunday	3,311
TOTAL SPECTATORS	**110,453**

TABLE 2. Money spent by brotherhoods and brotherhood members (DIRECT EFFECT)

	Total expenditure (€)	Spending outside Palencia (€)	Spending in Palencia (€)
EXPENDITURE BY BROTHERHOODS			
A. PROPERTY			
Purchasing/renting premises	35,146.43	0.00	35,146.43
Refurbishment	16,010.76	0.00	16,010.76
Maintenance costs (insurance, water …)	23,644.89	0.00	23,644.89
Other related expenses	10,357.51	0.00	10,357.51
B. FURNITURE			
Purchasing furniture	13.53	0.00	13.53
Repairs	560.98	0.00	560.98
C. ASSETS			
Statues and floats	47,772.60	31,000.00	16,772.60
Precious metal craftwork	18,134.96	4,500.00	13,634.96
Embroidery work (banners …)	2,304.28	0.00	2,304.28
Accessories for the procession	17,969.71	8,500.00	9,469.71
Other related expenses	1,381.00	0.00	1,381.00
D. EXPENDITURE ON PROCESSIONS AND MASSES			
Flowers	13,993.70	0.00	13,993.70
Hiring bands	16,501.91	4,407.62	12,094.29
Robes and ornaments	10,226.02	0.00	10,226.02
Accessories for robes	8,480.23	0.00	8,480.23
Mementos for brotherhood members	6,889.22	0.00	6,889.22
Other related expenses	9,375.25	0.00	9,375.25
E. OFFICE MATERIAL			
Stationery	3,180.99	0.00	3,180.99
Mailing the brotherhood members (letters …)	7,266.18	0.00	7,266.18
Printing	20,366.01	0.00	20,366.01
Other related expenses	994.33	0.00	994.33
F. SOCIAL ACTION			
Donations and help	3,452.96	0.00	3,452.96
Social work and alms	2,680.57	0.00	2,680.57
Other related expenses	1,700.00	0.00	1,700.00
G. OTHER EXPENSES			
Representation expenses	3,445.18	0.00	3,445.18
Other current expenses	23,988.71	0.00	23,988.71
TOTAL BROTHERHOODS	305,837.90	48,407.62	257,430.28
EXPENDITURE BY BROTHERHOOD MEMBERS			
Robes	92,164.32	0.00	92,164.32
Preparation /cleaning of robes	17,488.75	0.00	17,488.75
Accessories	6,013.75	5,554.40	459.35
TOTAL BROTHERHOODS	115,666.82	5,554.40	110,112.42
TOTAL DIRECT EFFECTS	421,504.72	53,962.02	**367,542.70**

TABLE 3. Hotel occupation in Palencia during Holy Week (2012)

Day	Hotel accommodation	Occupation	Overnight stays
Friday before Palm Sunday	979	59.49%	582
Saturday before Palm Sunday	979		582
Palm Sunday	979	38.93%	381
Holy Monday	979		381
Holy Tuesday	979		381
Holy Wednesday	979	70.70%	692
Holy Thursday	979		692
Good Friday	979		692
Easter Saturday	979		692
TOTAL			5,075

TABLE 4. Distribution of visitors by type

Type of visitor	Accommodation	Percentage	No. of visitors
Tourists paying for accommodation	Hotel	52.81%	1,887
	Guest house	2.81%	100
	Camp site	1.12%	40
Tourists not paying for accommodation	Own house	19.10%	682
	With relatives/friends	11.80%	422
Day trippers	-	12.36%	442
TOTAL	-	100.00%	3,573

TABLE 5. Distribution of visitors by type and motivation (Number and percentage)

Type of visitor	Option A Main motivation	Option B Secondary motivation	Option C No influence	Total
Tourists paying for accommodation	464 (14.24%)	1,096 (33.62%)	227 (6.97%)	1,787 (54.83%)
Tourists not paying for accommodation	47 (1.44%)	756 (23.20%)	307 (9.42%)	1,110 (34.06%)
Day trippers	114 (3.51%)	191 (5.85%)	57 (1.75%)	362 (11.11%)
Total	625 (19.19%)	2,043 (62.67%)	591 (18.14%)	3,259 (100%)

TABLE 6. Mean daily expenditure (€) by concept and type of visitor

Concept	Tourists paying for accommodation			Tourists not paying for accommodation			Day trippers		
	Op A	Op B	Op C	Op A	Op B	Op C	Op A	Op B	Op C
Accommodation	57.32	52.72	46.79	-	-	-	-	-	-
Food and drink	44.38	34.85	35.73	30.00	30.22	1.25	14.00	11.07	0.00
Transport/parking	5.07	6.86	5.83	15.00	10.48	0.62	6.00	1.43	0.00
Mementos and souvenirs	4.98	3.27	3.10	0.00	8.24	16.25	0.00	0.00	0.00
Admission to monuments	3.86	3.63	1.74	0.50	3.53	5.00	0.00	0.71	0.00
Tourist purchases	8.71	10.28	7.74	25.00	4.87	1.67	0.00	0.00	0.00
Other expenditure	9.50	9.17	7.94	10.00	12.18	8.75	8.00	3.57	0.00

Op A = Option A (main motivation); Op B = Option B (secondary motivation); Op C = Option C (No influence)

TABLE 7. Days and nights spent in Palencia by type of visitor

	Tourists paying for accommodation			Tourists not paying for accommodation			Day trippers		
	Op A	Op B	Op C	Op A	Op B	Op C	Op A	Op B	Op C
Days in Palencia	3.11	3.14	3.48	3.50	3.97	10.15	1.67	2.30	2.33
Nights in Palencia	2.64	2.71	2.72	2.50	3.42	9.31	0.00	0.00	0.00

Op A = Option A (main motivation); Op B = Option B (secondary motivation); Op C = Option C (No influence)

TABLE 8. Expenditure (€) by type of visitor and total visitor expenditure

Concept	Tourists paying for accommodation	Tourists not paying for accommodation	Day trippers	Total
Accommodation	148,508.12	0.00	0.00	148,508.12
Food and drink	124,009.21	50,284.95	5,096.85	179,391.01
Transport/parking	19,120.35	18,194.42	1,456.38	38,771.15
Mementos and souvenirs	12,813.09	12,365.44	0.00	25,178.53
Admission to monuments	11,816.35	5,379.58	155.95	17,351.88
Tourist purchases	30,257.88	11,420.71	0.00	41,678.59
Other expenditure	29,487.88	19,923.04	2,307.19	51,718.11
Total visitor expenditure	376,012.88	117,568.14	9,016.37	**502,597.39**

TABLE 9. Calculation of capacity: type and number of attendees

Type of attendee	Number of different people	Mean processions	Number of spectators
Total public	-	-	110,453
Visitors	3,259	2.96	9,655
Non-active brotherhoods (public)	2.125	4.79	10,179
Local resident public	16,817	5.39	90,619

TABLE 10. Distribution of residents according to motivation and influence on Holy Week on their spending (number and percentage)

Type of resident	Option A Main motivation	Option B Secondary motivation	Option C No influence	Total
Influences spending	3,922 (23.32%)	2,788 (16.58%)	2,353 (13.99%)	9,063 (53.89%)
Does not influence spending	1,655 (9.84%)	3,311 (19.69%)	2,788 (16.58%)	7,754 (46.11%)
Total	5,577 (33.16%)	6,099 (36.27%)	5,141 (30.57%)	16,817 (100%)

TABLE 11. Mean expenditure (€) by concept and resident motivation and total expenditure

	Option A Main motivation (100%)	Option B Secondary motivation (50%)	Total
Eating and drinking out	38.68	35.34	200,966.92
Transport/parking	2.98	6.10	20,190.96
Donations and alms	2.66	3.31	15,046.66
Admission to monuments	0.98	1.20	5,516.36
Purchasing clothes/footwear	2.62	6.71	19,629.38
Other expenses	12.08	10.66	62,237.80
Total resident expenditure			**323,588.08**

TABLE 12. Total spectator expenditure (€) (INDIRECT EFFECT)

	Expenditure
Visitors	502,597.39
Residents	323,588.08
TOTAL INDIRECT EFFECTS	**826,185.47**

TABLE 13. Calculation of induced effects based on direct and indirect effects

	Direct and indirect expenditure (€)	Multiplier (sector)	Value of multiplier	Induced effect
BROTHERHOODS				
Expenditure on premises	35,146.43	43	1.346668	47,330.58
Refurbishment	16,010.76	32	2.359491	37,777.25
Maintenance costs (insurance, water …)	23,644.89	06	2.445230	57,817.19
Other expenses (related with the premises)	10,357.51	43	1.346668	13,948.12
Purchasing furniture	13.53	35	1.599445	21.64
Repairs	560.98	35	1.599445	897.26
Statues and floats	16,772.60	30	3.030299	50,825.98
Precious metal craftwork	13,634.96	30	3.030299	41,318.01
Embroidery work (banners …)	2,304.28	30	3.030299	6,982.65
Accessories for the procession	9,469.71	30	3.030299	28,696.06
Other expenses (related with assets)	1,381.00	30	3.030299	4,184.85
Flowers	13,993.70	35	1.599445	22,382.16
Hiring of bands	12,094.29	57	1.955592	23,651.50
Robes and ornaments	10,226.02	35	1.599445	16,355.96
Accessories for robes	8,480.23	34	1.758167	14,909.67
Mementos for brotherhood members	6,889.22	34	1.758167	12,112.40
Other expenses	9,375.25	34	1.758167	14,995.20
Stationery	3,180.99	35	1.599445	5,087.81
Mailing members of the brotherhoods (letters …)	7,266.18	39	1.503292	10,923.19
Design and printing	20,366.01	20	2.812506	57,279.52
Other expenses (linked to stationery)	994.33	39	1.503292	1,494.76
Donations and help	3,452.96	55	1.360577	4,698.01
Social work and alms	2,680.57	55	1.360577	3,647.12
Other expenses (linked to social work)	1,700.00	55	1.360577	2,312.98
Representation expenses	3,445.18	36	2.009559	6,923.28
Other current expenses	23,988.71	35	1.599445	38,368.62
MEMBERS OF THE BROTHERHOODS				
Making robes	92,164.32	35	1.599445	147,411.76
Preparation/cleaning of robes	17,488.75	35	1.599445	27,972.29
Accessories for robes	459.35	35	1.599445	734.70
RESIDENTS				
Eating and drinking out	200,966.92	36	2.009559	403,854.88
Transport and parking	20,190.96	37	1.848244	37,317.82
Donations and alms	15,046.66	55	1.360577	20,472.14
Admission to monuments	5,516.36	57	1.955592	10,787.75
Purchase of clothes and footwear	19,629.38	35	1.599445	31,396.11
Other expenses	62,237.80	35	1.599445	99,545.94
VISITORS				
Accommodation	148,508.12	36	2.009559	298,435.84
Eating and drinking	179,391.01	36	2.009559	360,496.79
Transport and parking	38,771.15	37	1.848244	71,658.54
Mementos and souvenirs	25,178.53	35	1.599445	40,271.68
Admission to monuments	17,351.88	57	1.955592	33,933.20
Tourist purchases	41,678.59	35	1.599445	66,662.62
Other expenses	51,718.11	35	1.599445	82,720.28
TOTAL	**1 193,728.17**			**2 258,614.12**

TABLE 14. Economic impact of Holy Week in Palencia in 2012 (TOTAL EFFECT)

	Amount of expenditure
Direct Effects	367,542.70
Indirect Effects	826,185.47
Net Induced Effect	1 064,885.95
TOTAL ECONOMIC IMPACT 2012	**2 258,614.12**

TABLE 15. Estimate of the geographical distribution of the economic impact of Holy Week in Palencia in 2012 (TOTAL EFFECT ON PALENCIA)

	Hypothesis of distribution effects	Expenditure (€)
Effect on the economy of Castilla y León (Palencia)	81.59%	1 842,803.26
Effect on the economy of the rest of Spain (Spain – CyL)	12.50%	282,326.77
Effect on the economy of the rest of the world (Total – Spain)	5.91%	133,484.09
TOTAL IMPACT	100%	**2 258,614.12**