

Research article

Using regional input-output tables to measure the economic impact of religious events

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Abstract: The Holy Week in the Region of Murcia constitutes a major cultural and tourism resource, attracting substantial visitor flows from within Spain and abroad. With four celebrations—Lorca, Murcia, Cartagena, and Jumilla—designated as Festivals of International Tourist Interest, the region stands out nationally for the scale and distinctiveness of its Holy Week traditions. Beyond their religious foundations, these events integrate art, heritage, and local identity, generating significant economic activity while contributing to social development and cultural continuity. Building on growing recognition that event impacts extend beyond economic outcomes, this paper analyzed both the economic and socio-cultural effects of Holy Week in Lorca and Cartagena. The study was framed within contemporary event impact literature, which increasingly calls for multidimensional assessments that incorporate social and cultural outcomes alongside traditional economic indicators. Using input–output methodology, the first part of the analysis estimated the economic impact of Holy Week in terms of generated production, local value added, and employment creation. Complementing these results, the second part examined the socio-cultural contributions of the festivals through more than 700 online surveys administered to event organizers. Findings reveal substantial benefits in cultural preservation, community identity, social cohesion, and individual well-being, reflecting the festivals’ broader role in local and regional development. By integrating economic and socio-cultural dimensions, this research advances existing studies on religious events, which have predominantly focused on economic effects. The results underscore the multifaceted value of Holy Week in Lorca and Cartagena and highlight the need for comprehensive assessment frameworks capable of capturing the diverse impacts of cultural events. The paper concludes by summarizing its main contributions and outlining implications for tourism planning and event policy in the Region of Murcia.

Keywords: event impact assessment; input–output analysis; socio-cultural impact; religious tourism; regional development

JEL Codes: C67, R11, Z12, Z32

1. Introduction

The Holy Week in the Region of Murcia is a major tourism resource and has become a magnet for many visitors, either domestic or international. The region stands out within Spain, with Lorca, Murcia, Cartagena, and Jumilla Holy Week celebrations declared “Fiesta of International Tourism Interest”. These celebrations transcend religious facts and combine art, tradition, culture, and heritage, offering a unique experience. They also represent an important source of employment and wealth for the regional economy.

Based on the potential of these events for the tourism sector, this paper focuses on the Holy Week of Lorca and Cartagena, two outstanding medium-sized religious events in Spain, for which we have detailed data. The Holy Weeks of Murcia and Jumilla, although equally deserving of study, could not be included in the present analysis due to data availability constraints, being left for future research.

Research on religious tourism has consistently demonstrated that case studies of specific pilgrimage or faith-based destinations provide transferable insights into the economic, social, and managerial dynamics (Romanelli et al., 2021). In this sense, our study will share structural characteristics with other previously analyzed international experiences, showing traits of community participation, volunteer-based organization, heritage-based ritual practices, and the generation of seasonal tourism flows (Collins-Kreiner, 2010). Besides that, this study will also provide transferable insights into how religious heritage events generate not only a rich set of economic but also socio-cultural rewards, including relevant positive externalities to the resident population—all aspects that remain underrepresented in the existing literature (Getz, 2008). In this way, the present study contributes new empirical evidence on medium-sized Holy Week events, thereby offering insights that complement and extend the existing literature predominantly focused on larger-scale events, as noted by Timothy and Olsen (2006) and Collins-Kreiner (2010).

Planned events typically play a significant role in the communities that host them (Bowdin et al., 2023). Beyond their anticipated economic benefits (Arnegger and Herz, 2016), events embody social and cultural values for both participants and residents (Chalip, 2006; Delgado, 2016; Getz and Page, 2016). With the rise of mass tourism in the mid-twentieth century, the potential of events to shape social and economic development has expanded significantly. Nevertheless, pure economic assessments have long dominated evaluation practices, with policy frameworks mainly focusing on economic indicators (Dwyer et al., 2000). Recent examples of this include Lafuente Sánchez et al. (2017), who explored the economic impact of Holy Week on the city of Palencia (Spain); Budovich (2023) evaluated how religious tourism can foster the economic development of Russian traditional settlements; while Montero and Yang (2022) investigated the economic rewards of the Catholic patron saint day festivals in Mexico.

As a result, there is an increasing acknowledgment of the need to fully understand the social impacts associated with events (Brown et al., 2015; Kim et al., 2015). In a recent contribution, OECD (2023a) provided a comprehensive survey of the current advice, guidelines, and good practices for

assessing the impact of global events. Global events (including culture, sports, and business events) can have a significant impact on local development. Yet, measuring this impact in a consistent, reliable, and comprehensive way can be challenging. It also provides an overview of approaches to impact assessment, discusses the issues, challenges, and considerations to be made in conducting impact evaluations, and offers a set of actions that event hosts can take to improve impact assessments. OECD (2023b) presented a set of indicators to assess the economic, social, and environmental impact of global events (including culture, sports, and business events).

Typically, the social impact is considered primarily for the delivery phase of an event, though there is a growing focus on longer-lasting social impacts. For example, inclusion and diversity indicators relating to the proportion of participants who are from underrepresented groups (typically relating to gender, ethnicity, age, etc.) are used, with generally good comparability across evaluations. Other long-term indicators of social impact, such as increases in participation in cultural activities after the event or via the increase in well-being for the local population, are also becoming more commonly used. Case study methods and qualitative evidence are also beginning to be used more often in evaluations to monitor an event's impact on people's everyday lives. In this context, Wallstam et al. (2020) highlighted the lack of a coherent framework for understanding social impacts and showed how this gap hinders destinations seeking to work strategically with planned events. At present, destination-level policymakers do not share a common terminology or set of metrics with which to assess these impacts effectively.

Our work represents an attempt to close this gap. First, we conduct a rigorous analysis of the economic impact of the Holy Week in the Region of Murcia, to identify how each collective embarked in the event contributes to the regional and local economy in terms of production generated, added value contributed locally, and employment created. The rigor of computation comes from the detailed input–output methodology we employ in this part of the analysis. Second, the study contains a novel approach by digging deeper into the socio-cultural impacts of Holy Week. Impacts are defined and measured at the level of the individual sphere of participants, their social dimensions, tangible and intangible cultural contributions, and additional presence in the media. In this way, we combine analytical rigor and novel approaches with the study of the impacts of religious events, focusing on two relevant medium-sized case studies, in order to advance this field of research.

Based on this background, the paper is guided by three main research questions:

- (RQ1) What is the aggregate economic impact of Holy Week in Lorca and Cartagena, and how does it compare with other hosting Spanish cities?
- (RQ2) What are the perceived socio-cultural contributions of Holy Week, and how are they influenced by years of experience of participants?
- (RQ3) How can public policies amplify the benefits stemming from such religious events?

After this introduction, section 2 presents the materials and methods of both parts of the study (economic and socio-cultural). Section 3 includes the results of the Holy Week impact computations, while section 4 discusses the main findings and concludes.

2. Materials and methods

2.1. Economic impact of the Holy Week in Lorca and Cartagena

This section includes an analysis of the economic impact of Holy Week in the municipalities of Lorca and Cartagena (both cities located within the Region of Murcia). First, we develop methodological aspects to compute the impact according to the input–output methodology, measuring the existing interrelationships between the sectors of the economy to fully identify the economic effects of the expenditure vectors associated with Holy Week. Subsequently, we develop the analysis of the economic impact on the supply side, i.e., those aspects linked to the activity of the organizers (Pasos or Brotherhoods) and the institutions involved (City Councils). Further, we include the calculations for the demand side associated with the attendees, including tourists, excursionists, and residents who participate in the Holy Week. All of this allows us to estimate the total economic impact of the Holy Week in both municipalities. We detail the methodological aspects of the economic model as follows:

For an economy with n sectors of activity, the standard input–output model assumes that:¹

$$x = Ax + y, \quad (1)$$

where x and y are $n \times 1$ vectors of sectoral output and final demands, respectively, and A is a $n \times n$ matrix of technical production coefficients, where each characteristic element a_{ij} is the input of sector i needed to produce one unit of output in sector j . Equation (1) may be solved recursively to obtain the following relationship between output and final demand:

$$x = (I - A)^{-1}y, \quad (2)$$

where $(I - A)^{-1} = I + A + A^2 + \dots$ is the Leontief inverse. Thus, according to Equation (2), the change in output, Δx , which follows to an exogenous change in the final demand, Δy , is:

$$\Delta x = \Delta y + A\Delta y + A^2\Delta y + A^3\Delta y \dots, \quad (3)$$

which may be differentiated into two types of effects:

- Direct effect: Coincides with the increase in expenditure made by final demanders for the purchase of goods and services of the different sectors of activity. In Equation (3), the direct effect is $\Delta x_{DIRECT} = \Delta y$.
- Indirect effect: To meet final demand, firms in each sector must purchase intermediate inputs from other firms, and the latter in turn also purchase intermediate inputs from their suppliers, and so on. Thus, the interrelationships between production sectors imply that an increase in final demand for a good affects not only the sector producing the final good but also its suppliers and the suppliers of its suppliers. In Equation (3), the composed effect is given by the term $\Delta x_{INDIRECT} = (A + A^2 + A^3 + \dots)\Delta y$.

To the above effects, it must be added the induced effect due to the consumption expenditure of the workers occupying the jobs generated directly and indirectly by the initial increase in final demand ($\Delta y_{INDUCED}$). Thus, the induced effect is:

$$\Delta x_{INDUCED} = (I - A)^{-1}\Delta y_{INDUCED}, \quad (4)$$

¹ See Miller and Blair (2009) for a detailed exposition of the input–output methodology.

Finally, the total economic impact resulting from an increase in final demand is given by

$$\Delta x_{TOTAL} = \Delta x_{DIRECT} + \Delta x_{INDIRECT} + \Delta x_{INDUCED}, \quad (5)$$

which may be expressed in terms of other economic variables of interest, such as value added or employment, by applying the conversion coefficients implicit in the input–output table.

In summary, the strategy for estimating the economic impact of an event can be schematized as a two-stage procedure: estimation of the direct effect plus estimation of the indirect and induced effects in the input–output model framework. Regarding the estimation of the direct effect, the magnitude of the final expenditure on goods and services linked to the event is assessed. As we shall see, in the case of a cultural and religious event such as the Holy Week, two sources of initial expenditure must be distinguished: the activity carried out by the Holy Week processions throughout the year, and the expenditure made by those attending Holy Week. The latter group includes visitors who attend Holy Week (including tourists and day visitors or excursionists) and city residents who participate as spectators in the different events of Holy Week.

The estimation of each of these components is subject to distinct levels of complexity, depending on the background information available. In this sense, a collaboration with Holy Week event organizers provided detailed information to evaluate the direct economic effect of their activity with sufficient precision. On the other hand, in order to estimate the expenditure of residents and visitors to the Holy Week, it has been necessary to resort to different sources of information, including statistics published by the Institute of Tourism of the Region of Murcia (ITREM, n.d.) and studies on Holy Week in other cities (Analistas Económicos de Andalucía, 2009; Ayuntamiento de Almería, 2018; Del Alcázar et al., 2018; Melgarejo et al., 2019; Palma et al., 2013; Palma-Martos et al., 2014). Data for Lorca corresponds to the year 2019, and data for Cartagena corresponds to 2022. Both have been updated to 2025 euros.^{2,3}

For the estimation of the indirect and induced effects of the Holy Week, we use the regional input–output table for the Region of Murcia for the year 2019. This is the most up-to-date regional table available and has been provided by the Lawrence R. Klein Institute of the Autonomous University of Madrid.⁴ The table shows the intersectoral economic relationships with a breakdown

² Although data for Lorca and Cartagena were collected in different years (2019 and 2022, respectively), this temporal gap does not compromise the comparability of the results for several reasons. Holy Week is a highly standardized event with stable levels of local participation and tourist attendance, meaning that inter-annual variations are generally minimal. Furthermore, the COVID-19 pandemic rendered the 2020 and 2021 editions unsuitable as reference points, making 2022 the first viable opportunity to study Cartagena's celebration under normal conditions, which makes both events even more comparable.

³ To express results in constant prices and ensure inter-temporal comparability, monetary values of output and value added were updated using the Consumer Price Index (CPI). Although the application of sector-specific deflators would in principle be preferable, the unavailability of price indexes at the required level of regional sectoral disaggregation precluded this approach. The use of the CPI as a general deflator is a widely accepted practice in applied economic analysis when disaggregated producer or sectoral price indexes are not available, providing a consistent and transparent basis for adjusting nominal values across the economy (see, e.g., Miller & Blair, 2009). While this approach may not fully capture sector-specific price dynamics, it represents a reasonable and pragmatic approximation given the constraints of available statistical sources.

⁴ Some caveats may be necessary regarding the use of an input–output table for 2019 for the estimation of the economic impact of two events that took place in 2019 (Holy Week of Lorca) and 2022 (Cartagena). However, we use the last regional input–output tables available to date. Besides, academic and institutional evidence supports the view that input–output

of 26 branches of activity for the whole economy, including activities related to the three main sectors: agriculture, industry, and services. Furthermore, it is assumed that the technical coefficients of the input–output matrix to be used are those relating to the regional internal framework, given that this is the geographical scope defined in the study.

2.2. Sociocultural impact

The methodology in this section is designed to capture the perceptions held by members of the Pasos and Brotherhoods regarding socio-cultural impact. We define a specific questionnaire incorporating aspects relating to the contributions the Holy Week makes to individual development, local and regional society, local culture, and heritage, as well as a final block addressing other matters such as the presence of media at the event.

The purpose of questionnaires is to gather information on aspects associated with Holy Week in Lorca and Cartagena, encompassing a wide range of issues, many of which are intangible in nature and therefore even more valuable for the advancement of the literature. First, they include contributions to the personal development of individuals, children, and adults, who become involved in the preparation and acting stages of Holy Week from an early age, acquiring a level of awareness that enables them to more fully enjoy the celebration itself. Second, they involve a set of contributions to social life and identity in the same week, but also embedded in connected events, folklore, and traditions that extend throughout the year. Third, they comprise contributions to the preservation and recovery of local and regional culture and heritage, both material (chapels and churches, archives, Museums of Embroidery) and immaterial (events, traditions, distinctive cultural and musical features, and aspects of social cohesion). Finally, they account for other issues such as the presence of information on Holy Week in online resources; its contribution to the cultural corpus and calendar of the Region of Murcia; its presence in the media; and other activities associated with Holy Week, like photography competitions, literary contests, and local craft and food fairs. All questions are included in Table 1.

Table 1. Questionnaire items on the socio-cultural contributions of Holy Week from the perspective of members of the Pasos and Brotherhoods.

To individual development
Q1. Holy Week enables individuals to connect with their more mystical and spiritual side.
Q2. Holy Week allows for a special connection during those days with local culture and history.
Q3. Holy Week enables personal development throughout the year in cultural, historical, and religious dimensions.
Q4. Holy Week fosters improved social relations with other members of the Pasos and Brotherhoods.
Q5. Holy Week helps improve personal relationships outside more traditional environments such as family and friends.
Q6. Holy Week supports the development of social relations with other residents of Lorca.

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tables are generally reliable within approximately 5 years after the benchmark year. Therefore, we are confident our results are not heavily biased by the potential instability of the technical coefficients. Once more, we are guided by statistical resource availability.

To individual development

- Q7. Holy Week provides opportunities to enjoy local history and culture each year, together with visitors and friends.
- Q8. Holy Week promotes individual development within a broader social dimension.
- Q9. Young members of the Pasos and Brotherhoods spend less time on other age-typical activities such as going out at night or attending nightclubs.
- Q10. Participation in a Paso/Brotherhood helps to blur the barriers between children and adults.
- Q11. Participation in a Paso/Brotherhood helps to remove gender barriers and improves relations between men and women.
- Q12. Participation in a Paso/Brotherhood helps improve relations among people from diverse social and geographical backgrounds.
- Q13. Participation in a Paso/Brotherhood broadens the range of personal relationships beyond work or places of study (school, secondary school).
- Q14. The existence of the Pasos/Brotherhoods has helped attract non-resident visitors to this festival, who have been returning at this time of year for many years.
- Q15. I find no significant personal benefit in participating in a Paso/Brotherhood.
- Q16. I see no major personal differences between my friends who take part in the Pasos/Brotherhoods and those who are not interested in Holy Week.
- Q17. The existence of the Pasos/Brotherhoods does not improve social relations in my locality in any way.
- Q18. Do you identify any other contributions of Holy Week to personal and individual development?
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To local and regional society

- Q19. Participation in Holy Week helps people to value culture as an activity.
- Q20. Participation in the Pasos/Brotherhoods enables individuals to recognize their belonging to the community and reinforces their sense of local identity.
- Q21. Holy Week constitutes a fundamental activity for a large part of the local population.
- Q22. Holy Week increases social cohesion among the population of Lorca.
- Q23. Activities linked to the Pasos/Brotherhoods improve the arrival of tourists in Lorca.
- Q24. Holy Week improves the overall quality of life of the population of Lorca.
- Q25. Holy Week activities are not important for the majority of the population.
- Q26. Holy Week is, in your opinion, just another festivity in the local and regional calendar.
- Q27. Holy Week makes it possible to share local religious and historical culture and traditions with other cultures and creeds during those days.
- Q28. Holy Week helps consolidate values of respect and coexistence among different cultures and creeds.
- Q29. The Pasos/Brotherhoods do not make important contributions to local society and culture.
- Q30. Activities of the Pasos/Brotherhoods are a nuisance for the local population (noise, crowds, expense, litter in the neighborhood).
- Q31. Activities of the Pasos/Brotherhoods are a nuisance for me (noise, crowds, expense, litter in the neighborhood).
- Q32. Assess the contribution of Holy Week to the annual cultural offer in Lorca.
- Q33. Assess the contribution of the Pasos/Brotherhoods to the local cultural offer.
- Q34. Assess the contribution of Holy Week to the external image of the Region of Murcia.
- Q35. Include any other issues concerning the contributions of Lorca's Holy Week to local and regional society from your point of view.
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To local culture and historical-artistic heritage

Q36. Belonging to the Pasos/Brotherhoods helps people to recognize the value of local cultural heritage.

Q37. Holy Week promotes and preserves local and regional historical-artistic heritage.

Q38. The existence of the Pasos/Brotherhoods makes it possible to maintain a large cultural heritage: churches, festivities, documents, embroidery, images, traditions.

Q39. Activities of the Pasos/Brotherhoods provide work for a considerable number of artisans in the locality and the region.

Q40. Holy Week constitutes an intangible heritage that is often neither perceived nor valued.

Q41. Holy Week and the Pasos/Brotherhoods have made it possible to preserve centuries-old customs and traditions.

Q42. Holy Week and the Pasos/Brotherhoods have ensured the loyalty of visiting friends in Lorca and the Region of Murcia for many years during this period.

Q43. Activities of the Pasos/Brotherhoods do not constitute an important contribution to local culture and heritage.

Q44. Holy Week has not preserved much local culture; rather, it is a commercial festivity.

Q45. Holy Week and the Pasos/Brotherhoods have enabled the export of local culture and image to foreign visitors.

Q46. Performances of the Pasos/Brotherhoods do not attract a significant number of new visitors and tourists to the municipality.

Q47. The existence of the Pasos/Brotherhoods does not entail an improvement in the external image of the municipality or the Region of Murcia.

To other assessments

Q48. Assess the online presence of Holy Week: websites, presence on social media (Facebook, Twitter), and other electronic media.

Q49. Assess the contribution of Holy Week to the Region of Murcia in general.

Q50. Assess the presence of Holy Week in traditional media (newspapers, TV, radio, etc.) and its media impact.

Q51. Assess the role played by Holy Week activities in the festive and cultural calendar of the city of Lorca and the Region of Murcia.

Q52. Assess other activities associated with the Pasos/Brotherhoods and Holy Week: photography competitions, literary contests, craft and gastronomy fairs.

Source: Authors' own elaboration.

3. Results

3.1. Economic impact

3.1.1. Producers

From an economic point of view, the relevance of cultural or religious events is explained by their role as a driver of local and regional economic activity. In the case of a religious event like Holy Week, two sources of initial expenditure should be distinguished: the activities carried out by the Brotherhoods throughout the year, and the expenses incurred by attendees at some of the various events that make up Holy Week.

The heart of the Holy Week celebration is formed by the Brotherhoods in Cartagena and Pasos in Lorca (four and six, respectively). Their tasks include all those related to the organization and development of processions and passion parades, as well as to the maintenance and care of cultural and artistic heritage, represented by the embroidery pieces, the images, and the management of museums and chapels. According to the information provided by all Pasos and Brotherhoods in Table 2, the income structures of Lorca and Cartagena display marked contrasts in both the diversity of revenue streams and their relative significance. Cartagena exhibits a notably higher reliance on income derived from the sale of lottery tickets, raffles, and similar activities (14.2%) compared with Lorca (3.1%). Likewise, donations and inheritances from private individuals constitute a substantially larger share in Cartagena (6.0%), whereas they remain marginal in Lorca (0.4%). The most pronounced discrepancy is found in the category “Other sources of income: procession participants and others”, which accounts for 16.1% of Cartagena’s income but only 0.3% in Lorca.

Table 2. Sources of income of the Pasos and Brotherhoods (in shares and total expenditure in €).

Income	Lorca (%)	Cartagena (%)
Sale of lottery tickets, raffles, etc.	3.1	14.2
Sale of museum tickets	2.3	–
Income generated from the operation of premises, booths, bars at various events during the year (craft fairs, etc.)	0.2	0.6
Income derived from organizing sports, artistic events, etc.	0.5	–
Donations, direct inheritances from individuals	0.4	6.0
Sale of souvenirs (medals, prints, etc.)	2.5	1.8
Publishing of books and collectibles	0.1	–
Other sources of income: procession participants and others	0.3	16.1
Other sources of income: subsidies	35.3	16.7
Other sources of income: Choir	9.2	–
Other sources of income: stewards’ fees	15.4	37.3
Other sources of income: embroidery workshop	3.6	–
Other sources of income: procession chairs	26.9	7.2
Total % (€)	100.0%	100.0%
	(1,649,470)	(2,008,106)

Source: Authors’ own elaboration.

Conversely, Lorca depends far more on institutional or structured financial sources. Subsidies represent over one-third of Lorca’s total income (35.3%), more than double the proportion observed in Cartagena (16.7%). Lorca also derives significant income from procession chairs (26.9%), a contribution that is comparatively modest in Cartagena (7.2%). Additionally, Lorca’s stewards’ fees account for 15.4% of its revenue, although Cartagena again surpasses this with 37.3%, making it the most substantial single category.

Lorca also exhibits a broader array of small-scale income streams, such as museum ticket sales, publishing, and embroidery workshop activities, which are either absent or negligible in Cartagena. In contrast, Cartagena’s income is more concentrated in fewer, higher-yield categories. Overall, Lorca’s funding profile is more diversified and dependent on public subsidies, whereas Cartagena’s is characterized by a stronger emphasis on community-driven contributions and event-related income.

The expenditure profiles of Lorca and Cartagena reveal substantial structural divergences, particularly in the distribution of costs associated with Holy Week activities and institutional maintenance (Table 3). Lorca allocates a notably larger proportion of budget to Maintenance Expenses for the Premises, Chapels and Museums (15.9%) compared with Cartagena (11.6%), indicating a higher relative investment in the upkeep of physical infrastructures. In contrast, Cartagena shows a significantly greater commitment to Social Work and Donations (6.7%), a category that is almost negligible in Lorca (0.3%).

Table 3. Expenditure of the Pasos and Brotherhoods (in shares and total expenditure in €).

Expenditure	Lorca (%)	Cartagena (%)
Maintenance Expenses for the Premises, Chapels, and Museums	15.9	11.6
Social Work and Donations	0.3	6.7
Protocol, advertising, and posters	2.8	12.8
Banking and financial expenses	4.0	4.8
Gratuities for collaborators	–	3.9
Liturgical activities: hosts, wine, candles, liturgical books	–	2.2
Office supplies	0.3	1.5
Provisions	0.1	1.0
Purchase of religious items	–	0.9
Consultancy, website, and social media	–	0.8
Transport and security personnel	0.6	0.6
Consumption expenses for Holy Week	45.9	46.1
Repair, maintenance, and adjustment of costumes for parade participants, images, and floats	7.4	6.4
Music bands, choir	12.7	17.3
Floristry	0.4	16.1
Float-handling personnel	6.4	2.9
Carpenters, electricians, wax-makers, welders, goldsmiths, candle-makers, ...	2.4	0.7
Rental and maintenance of horses and accommodation for riders.	14.8	–
Provisions	–	1.5
Batteries	1.0	1.0
Insurance	0.8	0.1
Investment expenses for Holy Week	30.1	7.1
Investments in floats, images, embroidery, banners, and any other heritage acquisitions	24.2	3.9
Heritage conservation (restoration of premises, chapels, headquarters, costumes, embroidery, floats, images, etc.)	5.9	3.2
Total % (€)	100.0% (1,649,470)	100.0% (2,008,106)

Source: Authors' own elaboration and Esparza-Moldenhauer (2017).

Cartagena also dedicates proportionally more resources to Protocol, advertising, and posters (12.8%), far exceeding Lorca's expenditure in this area (2.8%). Similarly, Cartagena's spending on

Office supplies (1.5%) and Provisions (1.0%) surpasses Lorca's minimal allocations of 0.3% and 0.1%, respectively. The same pattern emerges in several specialized categories, such as Music bands and choir (17.3% in Cartagena vs. 12.7% in Lorca) and, most strikingly, Floristry, where Cartagena spends 16.1% of its budget, compared with only 0.4% in Lorca.

Lorca also exhibits higher expenditure in categories associated with the logistical and material organization of Holy Week. Particularly notable is the substantial outlay for Rental and maintenance of horses and accommodation for riders, representing 14.8% of Lorca's budget and absent from Cartagena. Lorca also allocates more to Float-handling personnel (6.4% vs. 2.9%) and to Carpenters, electricians, wax-makers, welders, goldsmiths, and candle-makers (2.4% compared with 0.7%).

The most significant divergence is found in Investment expenses for Holy Week, accounting for 30.1% of Lorca's total expenditure but only 7.1% in Cartagena. Within this category, Lorca's investment in heritage acquisitions (24.2%) far exceeds Cartagena's 3.9%, suggesting a stronger emphasis on long-term patrimonial enhancement. Lorca also spends more on Heritage conservation (5.9% vs. 3.2%).

Despite these differences, both cities display a broadly similar proportion of spending on overall Consumption expenses for Holy Week (45.9% in Lorca and 46.1% in Cartagena), though the internal composition of this expenditure varies considerably.

In sum, Lorca's expenditure pattern is characterized by investments in heritage, infrastructure, and operational logistics, whereas Cartagena's spending is more concentrated in promotional activity, floral decoration, musical accompaniment, and social contributions.

As we have seen previously, when reviewing the most important chapters in the income of the Pasos and Brotherhoods, the direct subsidies provided by the City Councils constitute one of the most important sources of funding for the Pasos and Brotherhoods. However, the support provided by the local administration goes beyond this direct contribution. Table 4 shows the items that detail the involvement of the local administration. Notable are the expenses related to security during the days of the parades, infrastructure expenses, machinery rental, and those related to advertising, promotion, and protocol necessary to publicize the activities carried out around the Holy Week. In short, the City Councils are heavily involved in the organization of this festivity by providing equipment, services, and personnel during Holy Week. Additionally, this event is promoted from cultural and tourism perspectives. The local administration is well aware of the capacity of the biblical-passion parades to generate direct, indirect, and induced economic effects, especially on tourism, hospitality, and other complementary activities that impact the economy of the cities.

Table 4. Expenditure of the City Councils (in shares and total expenditure in €).

Indirect contribution of the local administration	Lorca (%)	Cartagena (%)
Municipal Company (cost of machinery and staff)	8.3	10.4
Protocol, advertising, and tourism promotion	29.1	31.8
Private security	18.4	–
Holy Week infrastructure expenses	13.3	10.0
Civil Protection Service	4.7	4.2
Local police	25.7	43.6
Other expenses	0.5	–
Total % (€)	100.0%	100.0%
	(217,922)	(220,476)

Source: Authors' own elaboration.

The collaboration between the Pasos, Brotherhoods, and City Councils has made it possible to obtain detailed information with sufficient precision to assess the direct economic impact of their activity. The direct effects correspond to the expenditure of Pasos and Brotherhoods, plus the amount allocated by the City Council. To estimate the indirect and induced effects of Holy Week, the regional input–output table for the Region of Murcia is used, as it records the intersectoral economic relationships between the branches of activity within the entire economy. Indirect effects arise when such organizers' expenditure generates income for local firms, which in turn leads to further rounds of expenditure.

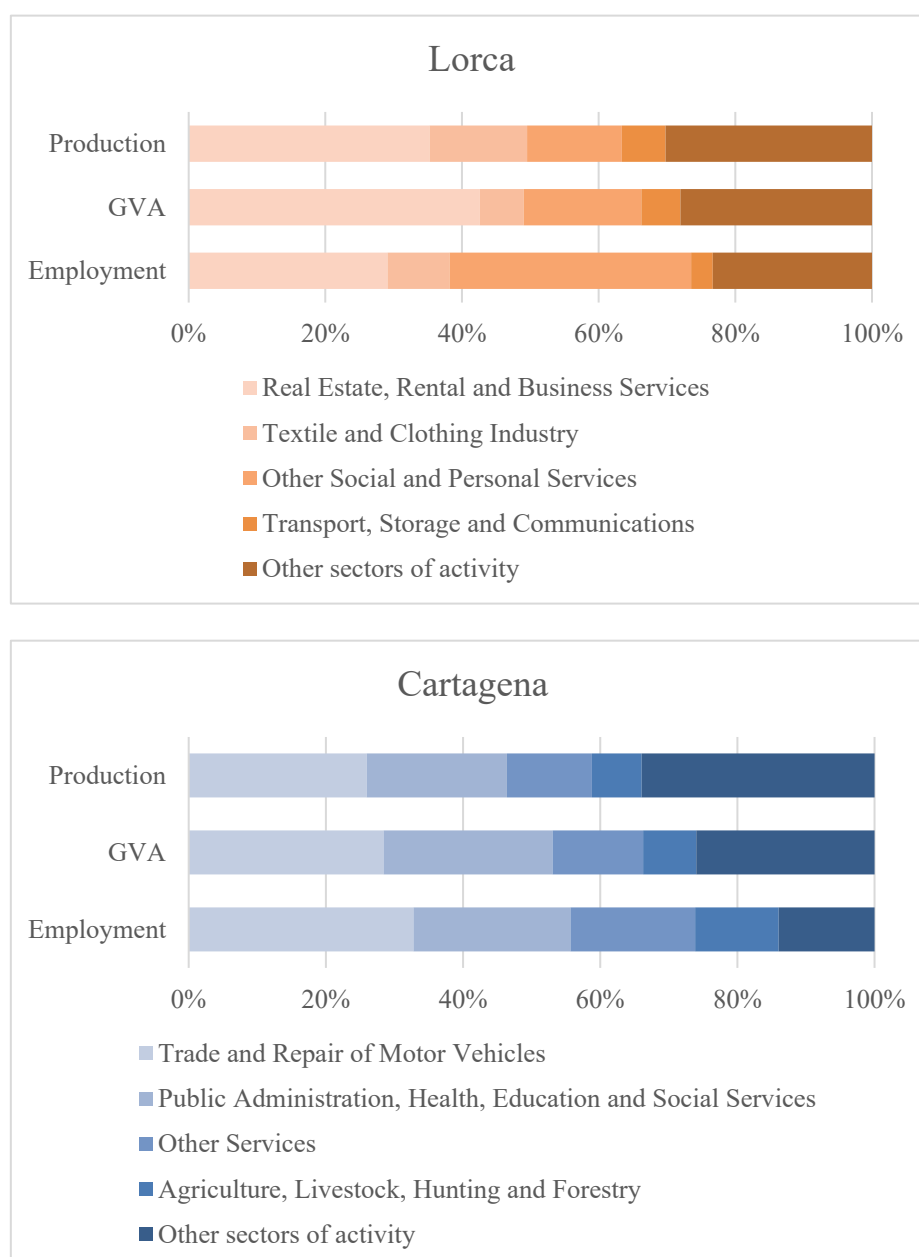


Figure 1. Structure of the economic impact of the producers in Lorca and Cartagena.
Source: Authors' own elaboration.

The total economic impact considered from the perspective of the producers in the Holy Week of Lorca and Cartagena is presented in Figure 1. In the case of Lorca, the sectors with the most pronounced effects are Real estate, Rental and Business services; Other social and personal services; Textile and clothing industry; and Public Administration. In Cartagena, the situation is somewhat different, with major spending at Trade and Repair, Public Administration, and Other Services. In general, the overall impact is dominated by the activity of the Pasos and Brotherhoods, whose economic weight exceeds that of the expenditure attributable to the City Council and municipal companies, as well as the activity they generate.

3.1.2. Attendees

It is important to note that the most important part of the aggregate economic impact of Holy Week is driven by the spending of attendees at the various events that make up the celebration. Evaluating the economic impact generated by spectators of Holy Week requires information on the amount of their global spending, or alternatively, on the total number of attendees and their average spending. Originally, such information was not available at any public statistical service, so we need to combine here the information provided by available local statistics with several working assumptions employed to estimate the spending behavior of attendees.

In order to quantify the magnitude of the spending of Holy Week attendees, it is advisable to separately consider residents of the city and visitors. Additionally, among visitors, we must differentiate between day-trippers, who do not spend the night in the city, and tourists, who stay at least one night by definition. Naturally, each of these groups presents different spending patterns that require individualized treatment. Below, we briefly describe the procedure to estimate the total number of attendees at Holy Week in Cartagena and Lorca and the average spending levels for each of the groups considered, namely tourists, day-trippers, and residents.

To estimate the economic impact generated by tourists visiting the city during the Holy Week, we use the available information on hotel supply and occupancy levels provided by the Statistical Office of Spain and the Region of Murcia (INE, ITREM), matched with information obtained through an opinion survey conducted during the celebration of Holy Week. In this case, the relevant variable is the number of days tourists stay in the city, together with the average daily expenditure they generate.

In estimating the total number of overnight stays, the starting point is the information on hotel occupancy in the municipality according to the ITREM's Tourism Occupancy Surveys. The occupancy of hotel establishments during the central days of Holy Week was approximately 93%. For the rest of the days of Holy Week, we apply the average weekend occupancy rate for the month of April. The average occupancy during the entire Holy Week would be approximately 71.3% in Cartagena and 85% in Lorca. Since some tourists do not stay in hotels during their visit, the total number of overnight stays also includes those in non-hotel accommodations (such as rented homes, places provided by friends or family, or properties owned by the visitors). The most immediate way to estimate the total number of overnight stays is to divide the estimated number of hotel overnight stays by the ratio of total tourists staying in hotel establishments over the total number of tourists. This last indicator is included in the ITREM reports. With this final adjustment, we would obtain a total of 70,492 overnight stays in Cartagena and 7977 in Lorca. The second variable that determines the direct economic impact of tourists is the average daily expenditure of each visitor. In this case, the estimated average expenditure is €69.33 per person per day in Cartagena and €73.70 in Lorca (ITREM, n.d.a–f).

A crucial aspect to consider concerns the main purpose of the visit. Two possible scenarios are accounted for; the first scenario only accounts for the expenditure of tourists whose stay in the city is primarily motivated by attending the Holy Week. It assumes that the rest of the tourists, although Holy Week may be among the reasons for their visit, would have traveled to the destination irrespective of whether or not the event was held. A total of 60.7% of tourists during Holy Week fall under this category. The second scenario assumes complementarity between the motives for travel: although the religious event may not be the main reason cited by tourists, it is nevertheless considered to contribute an added differential value to the chosen destination vis-à-vis other alternatives. In total, Holy Week is cited as one of the motives for travel by approximately 85.1% of tourists visiting during this period. This latter case will be adopted as the initial framework for our analysis, following mainstream studies on the matter (see Miller & Blair, 2009).

Figure 2 presents the breakdown of expenditure by tourists visiting the two cities during Holy Week, according to the types of goods and services consumed. This group of visitors directs the majority of its budget (78.9%) toward hospitality services, while 12.5% is devoted to the purchase of goods from local shops. In Cartagena, the purchase of hospitality services represents the principal destination of tourist expenditure. Particularly noteworthy is the proportion of visitors' budgets allocated to the acquisition of tickets for museums and other cultural and leisure activities (classified under other services), which accounts for approximately 17.0%.

Day-trippers' expenditure must be treated separately, given that their patterns differ from tourists. In this case, the key variables are total attendance and the average daily expenditure per visitor. These figures are estimated based on the opinion survey carried out in 2019–2022, together with mobility data and historical records of visitor flows. Each day visitor is assigned an average daily expenditure equivalent to that of tourists, once the share allocated to accommodation has been deducted. Accordingly, the estimated expenditure per excursionist per day amounts to €41.57 in Lorca and €37.53 in Cartagena. Figure 3 illustrates how this expenditure is distributed across sectors of activity, with a prominent role played by the purchase of food and beverages in hospitality establishments.

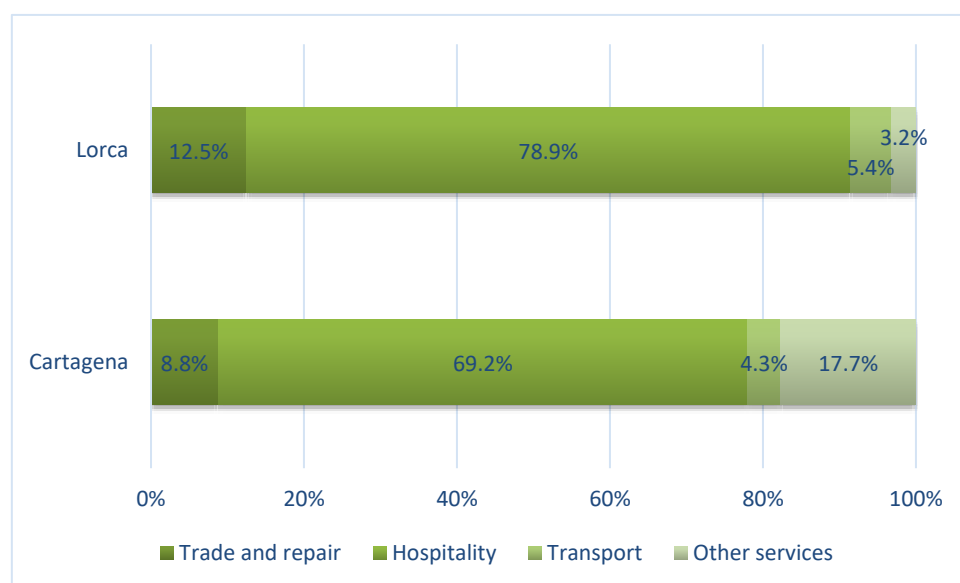


Figure 2. Distribution of the average daily expenditure of tourists. Source: Authors' own elaboration.

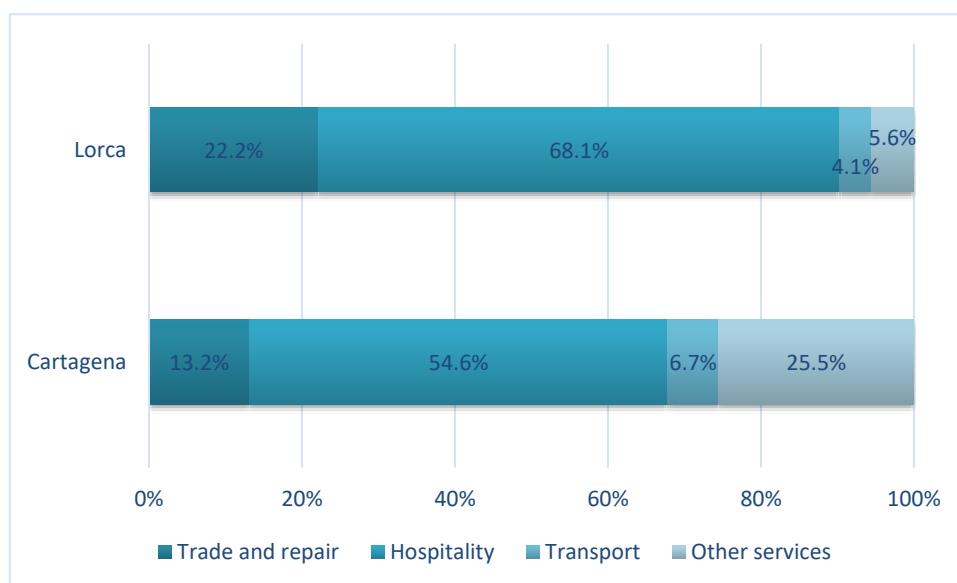


Figure 3. Distribution of the average daily expenditure of day visitors. Source: Authors' own elaboration. Source: Authors' own elaboration.

The expenditure of local residents attending Holy Week events constitutes a substantial part of the overall economic impact too. Although residents would remain in the city regardless of Holy Week, the event induces additional consumption by encouraging participation in processions and related activities. This induced consumption is calculated using survey data that capture average expenditure by residents during Holy Week, including spending on food services, leisure, transportation, and other related categories from the reports available on Holy Week in other Spanish cities (Almería, Málaga, Elche, Alicante, Orihuela); the main results are displayed in Figure 4.

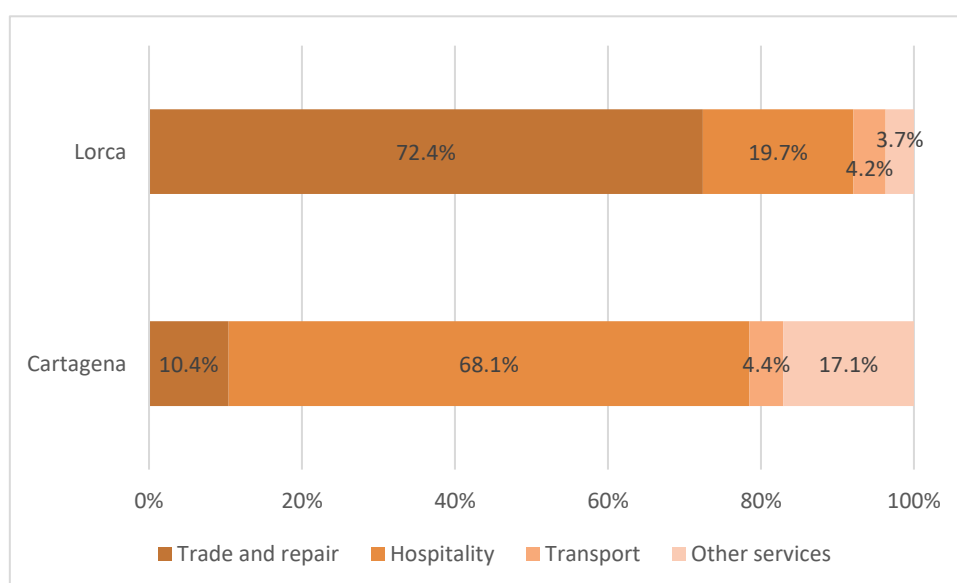


Figure 4. Distribution of the average daily expenditure of residents. Source: Authors' own elaboration. Source: Authors' own elaboration.

In aggregate terms, the sectoral distribution of the economic impact of expenditure by Holy Week attendees reveal clear differences between the two cities. In the first panel of Figure 5 (Lorca), Trade and Repair of Motor Vehicles dominates across production, GVA, and employment, indicating that Holy Week activities there have a particularly strong influence on retail and repair services. By contrast, in the second panel (Cartagena), the impact is concentrated mainly in Hospitality and Other Services, reflecting a local economy more closely tied to tourism and personal-service activities.

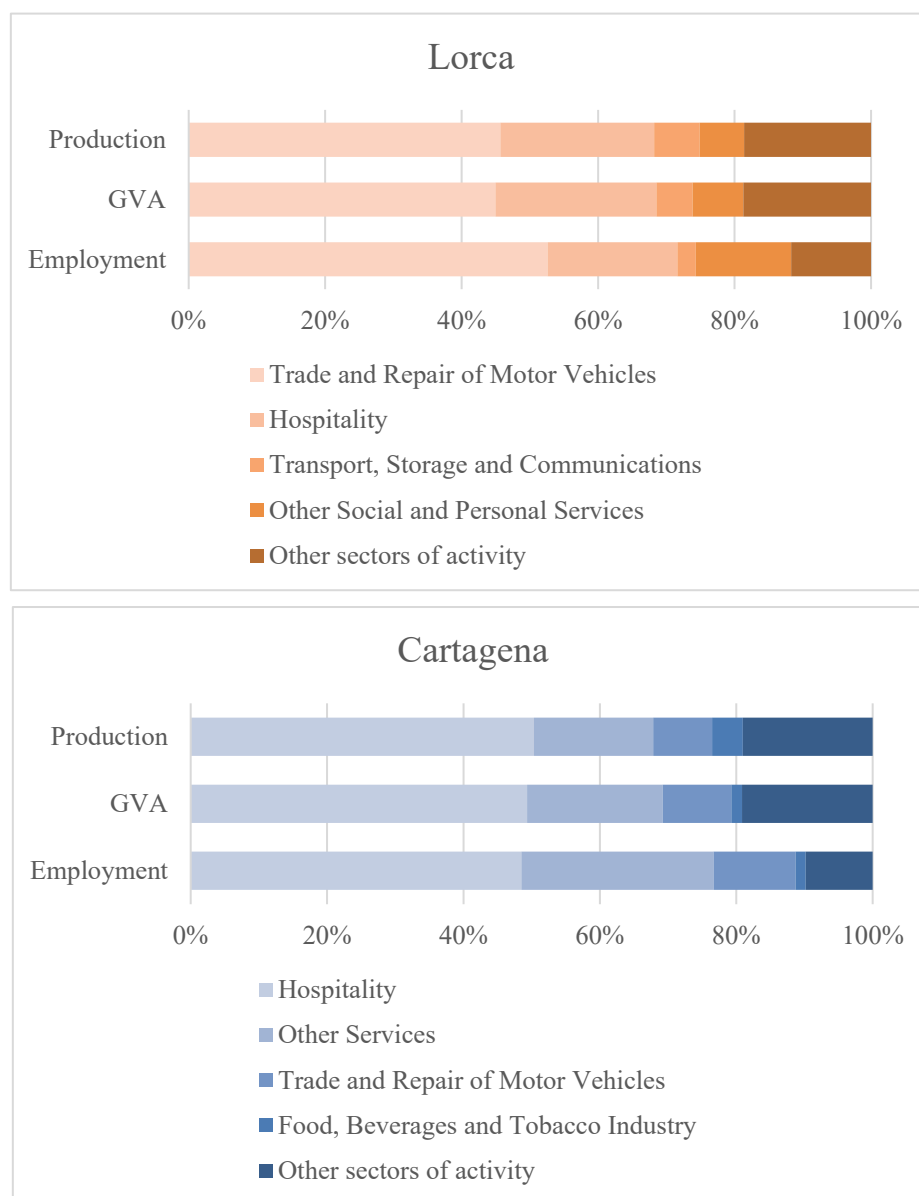


Figure 5. Distribution of the total effect of attendees by economic sector of activity (%).

Source: Authors' own elaboration.

Employment patterns mirror these distributions: labor-intensive sectors such as hospitality and other services account for a larger share in Cartagena, while trade absorbs most employment generated in Lorca.

In sum, Lorca exhibits an economic impact centered on trade and retail within a diversified structure, whereas Cartagena is characterized by a stronger reliance on hospitality and service-oriented activities.

3.1.3. Aggregate economic impact

A comprehensive assessment of the economic impact of Holy Week in Lorca and Cartagena under defined assumptions, which recognize the capacity of Holy Week to complement other travel motivations, requires aggregating the impacts estimated for all attending and organizing agents involved in the event. Table 5 jointly presents the estimated impact figures for producers (confraternities and the City Council) and attendees (tourists, day-trippers, and residents). The aggregate impact of these religious events implied an increase in the scale of production equivalent to €45,741,646, the generation of €26,750,254 in gross value added, and the creation of 516 full-time equivalent jobs.

Although the contribution of what we have termed “producers” (public administrations and confraternities) may appear secondary from the standpoint of the economic impact evaluation, it should be emphasized that the expenditure undertaken by these agents is, in fact, the trigger for the totality of the estimated impact. In this sense, it is obvious that any significant economic effect would arise in the absence of the producing activity and financial effort made by these groups.

Table 5. Direct, indirect, induced, and total economic effects on the regional economy (€2025).

Effect	Attendees	Producers	Total
Production			
Direct	26,866,193	4,463,187	31,329,380
Indirect	6,714,459	2,118,838	8,833,297
Induced	4,826,308	752,661	5,578,969
Total	38,406,960	7,334,686	45,741,646
Gross value added			
Direct	15,934,154	2,414,607	18,348,761
Indirect	3,797,998	1,296,327	5,094,325
Induced	2,856,226	450,942	3,307,168
Total	22,588,378	4,161,876	26,750,254
Full-time equivalent jobs			
Direct	331	49	380
Indirect	63	23	86
Induced	43	7	50
Total	437	79	516

Source: Authors' own elaboration.

To conclude, Table 6 presents a set of indicators that allow for a comparison of the economic dimension of Lorca and Cartagena Holy Week with that of other cities in Spain for which impact studies are available. The indicators in the table reflect the following breakdown of total economic impact per capita; in this breakdown, the economic effect per inhabitant (impact/population) is the product of the impact/producers expenditure (how many euros of additional output are generated for each euro allocated to organizing the event) times the producers expenditure/population (producers'

organizing effort per inhabitant). Lorca and Cartagena rank in the third top position in Spain in terms of per capita economic effect, just below Seville or Cordoba, despite a greater (Cordoba) or slightly lower (Seville) relative effort of organizers' spending per inhabitant. At the lowest tail of the spectrum are the cities of Palencia and Almeria, where both the economic impact per inhabitant and the effort made by organizers are the lowest of the group.

Table 6. Total economic effects of the Holy Week in several hosting Spanish cities.

	Seville	Cordoba	Palencia	Almeria	Alicante (Province)	Lorca and Cartagena
Impact/population	401.5	161.5	48.1	57.7	98.7	146.4
Impact/producers expenditure	27.7	7.8	8.4	13.6	30.0	9.3
Producers expenditure/population	14.1	18.5	5.5	4.2	3.3	15.4
Population	691,395	326,039	78,144	201,322	1,879,888	312,476

Source: Authors' own elaboration.

The notably higher Impact/Producers expenditure ratio for Seville (27.7) compared with Lorca and Cartagena (9.3) deserves particular attention. This difference is attributable to two complementary factors. First, Seville's Holy Week attracts a far larger volume of national and international tourists with higher average daily expenditure, reflecting the city's superior tourism infrastructure and the globally recognized symbolic prestige of its processions. Second, the structure of attendee spending in Seville is more heavily weighted toward accommodation and catering services, which carry higher sectoral multipliers within the input–output framework. In contrast, Lorca and Cartagena display a more diversified expenditure structure, including a larger share of retail and local trade, which generates somewhat lower aggregate multiplier effects. These structural differences suggest that the gap is explained primarily by differences in the scale of the visitor economy, followed by the composition of tourist spending. The province of Alicante (Spain) also exhibits a notably high Impact/Producers expenditure ratio, which can be attributed to its strong tourism specialization. Municipalities hosting Holy Week celebrations benefit from the presence of tourists already staying in the high-traffic coastal areas of the province, for whom attending a nearby event of this type represents an additional attraction rather than the primary motivation for their visit. This circumstance tends to inflate the ratio, as a significant share of visitor spending is not exclusively driven by the event itself, given the influx of tourists from surrounding coastal resorts in the Holy Week season.

3.2. Sociocultural impact

This section presents the results of the socio-cultural impact of Holy Week in Lorca and Cartagena. We focus on the perceptions held by members of the Pasos and Brotherhoods about how the festivity contributes to aspects of individual development, the local and regional society, to the local culture and heritage maintenance, and other matters previously defined in the questionnaire. As noted, just relying on the opinion of members could introduce some bias in the captured perceptions, as we are solely receiving the views of the more involved collective in preparing and experiencing the religious event first-hand. However, being conscious of such a limitation, we understand that this collective is precisely the best endowed to fully capture all socio-cultural impacts provided by Holy

Weeks, as they are active participants in all days and acts along the week, in contrast with other residents and tourists that usually only become involved in a few of the more popular ones. In fact, further from locally resident participants, the Pasos and Brotherhoods include other residents in the Region of Murcia coming every year from neighboring towns, from the rest of Spain, and even from other EU countries, with relevant links with the Week, also providing some outsider views. The questions in Table 7 were originally measured using a 1–7 Likert scale (Lorca) and a 1–5 Likert scale (Cartagena). In the latter case, the variables were transformed into an equivalent 1–7 scale through linear rescaling, to ensure comparability of both case studies. This procedure preserves the ordinal structure of the data and relative differences between groups. Linear rescaling of Likert-type scales is a recognized procedure in comparative survey research when the underlying construct and item content are equivalent across instruments (Dolnicar and Grün, 2007; Jebb et al., 2021). It maps each original response category onto the target scale, which preserves both the direction and the proportional spacing of the original responses.

The results in Table 7 point to several issues: first, the mean age of organizers in Pasos and Brotherhoods is younger than expected, at around 40 years old; the female share is also relevant and even higher in Cartagena. Years of activity are important too, between 20 and 30 years, while working hours devoted to this religious event also appear significant, between 16 and 35 per month throughout the year and 18–29 during Holy Week, a clear devotion to the celebration. Second, perceptions of questionnaire items show relevant ratings for all of them, with positive questions above 6 points out of 7 for nearly all questions, and negative ones above 2 points, rejecting those statements.⁵

Among all these positive perceptions of the socio-cultural contributions of Holy Week, the highest ratings are obtained for cultural and social issues, respectively. In Table 7, the standard deviations (shown in parenthesis) appear to be lower in these two culture and society sections. In fact, the rating distribution appears more disperse, with higher variability in the first and last sections, regarding contributions made to the individual and about the presence of the media, with some responses rating below 6 (or even 5 points in the case of Cartagena), as the standard deviation values show.

In terms of the reliability of each construct, we report the Cronbach alpha statistic for Lorca and Cartagena. All measures stay above 0.7, showing a good reliability of the measurement models; in particular, the highest reliability is shown for factors composing the constructs of contribution of the Holy Week to the individual and to local culture plus heritage, with alphas above 0.8. In the case of Cartagena, the statistics appear slightly lower in all four constructs, but are always above the acceptable 0.7 threshold.

⁵ Negative items in the questionnaire include Q15–Q17 for individual development, Q29–Q31 for social issues, and Q43–Q47 for cultural ones. The rest are defined as positive ones. Mean values provided in Table 7 are computed for the whole set of positive and negative items separately, as a way of reporting synthetic results, given the space limitations of an article. We acknowledge the heterogeneity that could be associated with this section in regard to socio-cultural results, but want to call attention to the supplementary character of the section, as an interesting complement to the economic impact IO analysis.

Table 7. Summary of socio-cultural contributions of Holy Week from the perspective of the members of the Pasos/Brotherhoods.

	Lorca	α -stat	Cartagena	α -stat
Age	41		45	
Female	34%		41%	
Years of activity	24		30	
Monthly hours devoted				
Throughout the year	35		16	
During Holy Week	29		18	
Contribution of Holy Week				
To individual development				
Positive aspects	6.2 (1.1)	0.876	5.7 (0.9)	0.849
Negative aspects	1.5 (0.9)	0.706	n.a.	
To local and regional society				
Positive aspects	6.4 (0.7)	0.814	6.4 (0.8)	0.753
Negative aspects	1.3 (0.8)	0.722	n.a.	
To local culture and historical-artistic heritage				
Positive aspects	6.6 (0.5)	0.828	6.4 (0.3)	0.813
Negative aspects	1.0 (0.4)	0.835	n.a.	
Other contributions	6.3 (0.9)	0.817	4.1 (0.9)	0.754
No of observations	341		365	

Note: α -stat: Cronbach alpha statistics. Standard deviation values in parentheses. n.a.: not available. Source: Authors' own elaboration.

Additional results in Table 8 show a higher presence of females in the younger age cohorts, with fewer years of adhesion, while other participants remain for more than 45 years. Results reveal once again very high assessments across all four dimensions of the socio-cultural impact of Holy Week, with mean scores exceeding 6 points on a 1–7 Likert scale (indicating strong agreement with the statements posed), and very low values—between 1 and 2 points—for negatively framed items (indicating strong disagreement). Within this already favorable evaluation, the highest scores correspond to items in Blocks 2 and 3, which relate to Holy Week's contributions to local and regional society and to local culture and historical–artistic heritage, respectively, as previously stated.

In general, the groups offering the most positive assessments are those with the greatest number of years of membership in the Paso/Brotherhood and those devoting the most hours annually to preparing Holy Week. Moreover, the Chi-sq tests in Table 8 offer evidence on the equality of variance among the groups by years in the Paso/Brotherhood for all socio-cultural constructs in the study and related ratings gathered. In general, statistical results show significant differences among groups by years as defined previously, with higher test significance for the cultural and social constructs. Such an outcome provides statistical robustness to previous intuitions on the dissimilarity of ratings by segments of actors of the Holy Week in Table 8.

Table 8. Socio-cultural effects of the Holy Week, organized by years in the Paso/Brotherhood.

	Lorca					Cartagena				
	Years in the Paso				χ^2 test	Years in the Brotherhood				χ^2 test
	<15	16–25	26–45	>45		<15	16–25	26–45	>45	
Female	48%	23%	25%	37%		46%	39%	45%	29%	
No hours devoted per month	12	18	30	22		6	10	16	12	
Contribution of Holy Week										
To individual development										
Positive aspects	6.1	6.1	6.3	6.3	11.55**	5.7	5.7	5.5	5.7	8.85*
Negative aspects	1.9	1.4	1.5	1.2	9.14*	n.a.	n.a.	n.a.	n.a.	
To local and regional society										
Positive aspects	6.4	6.3	6.3	6.6	10.11**	6.4	6.3	6.3	6.2	25.8**
Negative aspects	1.4	1.3	1.2	1.5	14.81**	n.a.	n.a.	n.a.	n.a.	
To local culture and historical-artistic heritage										
Positive aspects	6.6	6.5	6.6	6.8	22.10**	6.4	6.4	6.4	6.6	26.6**
Negative aspects	1.3	1.0	1.0	1.0	12.09**	n.a.	n.a.	n.a.	n.a.	
Other contributions	6.6	6.6	6.7	6.7	18.29**	6.4	6.4	6.4	6.7	8.32*

Note: χ^2 test: Bartlett's test for equal variances. (*) statistically significant at 5%; (**) statistically significant at 1%. n.a.: not available. Source: Authors' own elaboration.

As results have been showing, from a more academic perspective, Holy Week in Lorca and Cartagena—and associated events and institutions—constitutes an important source of what economists refer to as “positive externalities” for society. These positive external effects arise when the impact of an activity extends beyond those directly involved in it, generating benefits for other agents, the residents, not included in the corresponding “markets” or “sectors”. This is a recurrent theme in debates concerning the relevance of cultural traditions and festivals like religious events, and their related socio-cultural impact. In this study, we have been able to trace a method to better measure and understand such key issues.

All these aspects, many of them intangible, constitute the object of analysis in this section, which seeks to more broadly highlight their value in the eyes of Lorca and Cartagena and that of the Region of Murcia. In addition, these socio-cultural contributions should be placed within the broader framework of the European Union's commitment to exploiting cultural and heritage resources as key sectors for the development of a sustainable tourism and leisure strategy capable of generating increasing added value. Cultural supply is, therefore, a factor of the first order in attracting tourists with higher purchasing power and a strong awareness of sustainability, such as those arriving from the Nordic countries, North America, Australia, or Asia, who have become new visitors to Spain in recent years (see, for example, Artal-Tur et al., 2024; Artal-Tur and Kozak, 2019). Overall, Holy Week remains a cultural asset with substantial economic significance across Spanish territories, though its magnitude and efficiency vary markedly depending on local cultural capital, investment capacity, and tourism dynamics.

4. Discussion and conclusions

Taken together, the results indicate that Holy Week generates a multidimensional economic impact with strong forward and backward linkages. The predominance of attendee-driven effects illustrates that the event's economic significance is closely tied to the scale and behavior of visitors, making tourism management and destination attractiveness critical policy concerns. The presence of substantial indirect and induced effects suggests that benefits extend beyond the cultural sector into supply chains and household consumption.

Holy Week thus functions as both a cultural and economic catalyst, producing immediate expenditure-driven activity, contributing substantial value added to local industries, and supporting hundreds of full-time equivalent jobs. These findings reinforce the importance of cultural events as engines of territorial development, particularly in regions with established traditions and strong visitor appeal.

The data reveal substantial heterogeneity in the economic impact of Holy Week across the selected Spanish cities and provinces. These variations reflect differences in scale, institutional organization, tourism capacity, and the symbolic prominence of Holy Week within each territory. Taken together, the results underline that symbolic prestige and tradition (e.g., Seville, Cordoba) correlate with high per capita impacts and strong multipliers, whereas smaller cities with strong identity markers (e.g., Lorca, Cartagena) achieve notable impacts despite limited population bases. On the other hand, touristic infrastructure and territorial scale (Alicante) can compensate for lower producer expenditure, yielding high economic efficiency. Cities with less consolidated Holy Week traditions (as is the case with Almeria or Palencia) tend to generate lower multipliers and per capita impacts, suggesting more limited economic articulation around the event.

The participation of the local population in preparing Holy Week helps keep alive a deeply rooted tradition that provides a shared project and a social meeting place for the citizens of Lorca and Cartagena. The festival and its content are passed down to younger generations at an early age, fostering social ties with residents from other municipalities in the Region of Murcia who come to assist in its preparation, as well as with visitors from the rest of Spain and other European countries during the days of celebration.

These external effects relate to a set of contributions to society and to personal development. First, Holy Week is a powerful mechanism for socializing individuals and a channel enabling their participation in local community life. Second, the characteristics of Holy Week constitute a truly differentiating element that reinforces the local and regional identity. Each Brotherhood or Paso plays a role in safeguarding local culture, linked to the festival's historical, artistic, and cultural functions. Third, Holy Week fosters a sense of belonging to the activity, to the group, to the locality, and to the region. As various studies show, the sense of belonging and identity is one of the most crucial ingredients in the "recipe for happiness" (see, for example, Jiménez-Medina et al., 2021). Fourth, Holy Week is a key factor in shaping the image and external projection of the Region of Murcia, with clear economic repercussions. Finally, Holy Week has enabled the creation and preservation of a historical-artistic heritage based on the collection, conservation, and restoration of figures, embroideries, temples, and urban heritage. All this helps to keep alive the traditions and rich cultural legacy of the Region of Murcia.

To conclude, the economic impact results underscore the strategic importance of Holy Week as a driver of regional development, with significant implications for cultural, tourism, and economic policy. The predominance of attendee-generated effects across production, value added, and

employment indicates that policies aimed at increasing visitors until a sustainable threshold can yield substantial returns. More specifically, given that attendee spending (€38.4 million) outweighs producers' expenditure (€7.3 million) by a ratio of more than five to one, local governments and cultural planners should promote visitor flows and extend average length of stay, for instance, through coordinated accommodation actions, multi-city itinerary packages linking Lorca and Cartagena, and targeted marketing in high-yield international source markets. At the same time, the results confirm that producer expenditure by the Brotherhoods and City Councils acts as the indispensable trigger for the entire economic chain: sustaining and gradually increasing public co-funding and direct subsidies to the Pasos and Brotherhoods is therefore a high-return investment from a public finance perspective. Finally, the high socio-cultural scores related to intangible heritage preservation and community identity provide a clear rationale for dedicated funding lines aimed at safeguarding immaterial heritage, such as embroidery craft, musical traditions, and archival collections, as these assets underpin both the cultural value and the long-term tourist attractiveness of the event.

Use of AI tools declaration

The authors declare they have not used Artificial Intelligence (AI) tools in the creation of this article.

Author contributions

All authors have contributed along the whole process of creation and revision of the paper.

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Conflict of interest

All authors declare no conflicts of interest in this paper.

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