The socioeconomic impact of a scientific event on an island tourism destination

Marta Jacob[1, 4], Margarita Payeras[2, 4], Carmen Florido[3, 4]

[1] Department of Applied Economics, University of the Balearic Islands, Spain (e-mail: marta.jacob@uib.es)
[2] Department of Applied Economics, University of the Balearic Islands, Spain (e-mail: marga.payeras@uib.es)
[3] Carmen Florido. Department of Applied Economic Analysis, University of Las Palmas de Gran Canaria, Spain (e-mail: carmen.florido@ulpgc.es)
[4] The Interdisciplinary Laboratory of Circular Economy and Tourism (LIECT), University of the Balearic Islands.

Abstract

Event tourism is a dynamic element in many destinations. Current literature on its economic impact has focused mainly on the MICE segment, and sports and cultural events, with few papers on scientific and/or academic events. The aim of this paper is to analyse the socioeconomic impact of the 30th School of Public Health of Menorca in 2019. Four information sources were used and sample in the fieldwork consists of 441 personal interviews collected using a structured questionnaire. Findings show that the average daily expenditure per person of non-resident participants in Menorca is 160.66 euro—much higher than the daily expenditure for an average tourist, or those travelling to Menorca for any other reason. Given the average participant stay, the direct economic impact amounted to approximately 609,911.14 euro. With a tourism multiplier of 1.38, the direct and indirect impact of non-resident participants amounts to 826,759.57 euros.

Keywords: event tourism, scientific event, economic impact, tourism multiplier.

Funding

This research was supported by funding from the School of Public Health of Menorca and the University of the Balearic Islands.

Introduction

Nowadays, there is increasing interest in evaluating the economic impact of events. Event tourism has become a dynamic element in many locations (Getz and Page, 2019), and destinations develop, facilitate and promote all kinds of events for different goals: attracting tourists (especially in off-peak seasons), serving as a catalyst (for urban regeneration and increasing the infrastructure and tourism capacity of destinations), fostering a positive image and contributing to general marketing (e.g. a better place to live, work and invest), and stimulating specific attractions or areas (Getz, 2008).

Special events provide important recreational opportunities for residents. In many destinations, they are a fundamental component of tourism development strategy (Jago and Dwyer, 2006), prominently in developing and marketing destinations, and playing an expanding role in competitiveness (OECD, 2017).

Event tourism has been defined in the literature as "the systematic development, planning, marketing and holding of events as tourist attractions" (Hertanu and Boitor, 2012). As Getz (2008) indicates, events are an important motivation for tourism, and many tourist destination development and marketing plans consider events an important ingredient. Moreover, a major selling point is their

unique nature: for example, missing an annual scientific congress or sporting event such as the Copa del Rey (a sailing competition) is a lost opportunity, as the same event in another year will be different and provide a distinct experience (environment, participants, etc.) (Getz, 2008).

By fostering event tourism, host regions can position themselves in the tourism market industry. This promotion can generate a series of positive impacts, including large visitor numbers for repeat and prolonged stays (before or after the event) who would generally not visit the specific area. This supports the local hotel, leisure and restaurant industries through increased marketing and overall business. Large events attract both local and international visitors who either actively participate in organising the event or as speakers, or passively participate as attendees. In fact, event tourism has proven to be one of the most efficient ways to promote a region's economic development (Getz and Page, 2019).

There are several event classifications in the literature, depending on purpose and programme. Getz (2008) and Getz and Page (2019) distinguish eight main categories: cultural, political, and public; art and entertainment; business/trade; academic and scientific; sports; recreational; private, and social. For these authors, certain events are public celebrations, such as community parties, while others are organised for different purposes: competition, fun, entertainment, science, business, or socialisation, thus identifying eight types. Meanwhile, Dolasinski et al. (2021) distinguish 20 types that can be classified into four broad event categories: professional, entertainment, social and common cause.

As Getz and Page (2019) point out, the necessary infrastructure will be different depending on the type of event. For example, business/trade events require convention, exhibition or fair centres, while others are small parties and events in restaurants and hotels; sports competitions require stadiums, fields, sports centres, regatta courses, etc.; and in turn, scientific and academic events require an auditorium and parallel rooms for different sessions, all equipped with projectors, computers and Wi-Fi.

Current tourism literature indicates that tourists mainly travelling for business, work, fairs and conferences spend more on accommodation than any other tourist. In general, the profile of tourists travelling to attend an event is one with high purchasing power and an average spend above sun and beach tourists (Monge and Brandimarte, 2011; Auld and McArthur, 2003). With regard to the tourism segment for scientific or academic events, the concept itself has not been separately analysed but rather as a whole within the events sector that encompasses all event types.

Most published literature on event tourism has focused on the MICE segment, mainly business, trade, sports, competition, cultural and entertainment events. The MICE segment (Meetings, Incentives, Conventions and Exhibitions) refers to tourists “whose reason for traveling is linked to carrying out work, leisure, professional and/or associative activities through the holding of meetings of business, congresses, conventions, incentive trips, and other meetings similar to these (conferences, product presentations, conferences, scientific congresses, symposiums, forums, seminars, workshops, courses...) convened with different purposes and magnitudes” (Romero, 2015).

Scientific events serve to disseminate research results and help R&D progress, the results of which may contribute to regional or national development. Moreover, these events have an important socioeconomic impact. Visitors who attend a scientific or academic event support different tourism sectors, especially hospitality, restaurants and the leisure industry, with an economic impact on the local and regional economy. The hotel industry benefits from tourists who stay in hotels, frequent clubs and bars, and eat at restaurants during their stay. The entertainment industry benefits from event participants and attendees going to parks, local festivals, concerts and museums. Therefore, participating in or attending a scientific and/or academic event, booking a tourist package or visiting a destination have a direct and indirect impact on the local economy. Scientific events not only benefit economic sectors directly linked to the different contracted services for events, but also other sectors of the tourism value chain indirectly (leisure and culture, shops, taxis, etc.). However, there is very little empirical evidence and literature that focuses on analysing, understanding and evaluating the impact of scientific and/or academic events.

The present study focuses on analysing the socioeconomic impact of the 30th School of Public Health of Menorca (ESPM), a scientific event held in Lazaretto, Menorca from 16th to 25th September 2019. The Menorca Health School has held its annual Summer School since 1989, and the event has become a national and international benchmark in formulating, exchanging and debating public health issues, while enabling participants to enjoy the cultural and natural heritage of the island (CIME, 2020).

This paper is structured into the following sections: Section 1 introduces the concept and types of event defined in the literature; Section 2 analyses the importance of event tourism; Section 3 looks at scientific and/or academic events, reviewing the existing literature and empirical evidence; Section 4 describes the methodology used to analyse the economic impact of a scientific/academic event organised each year by the School of Public Health of Menorca (ESPM); Section 5 firstly describes the results from the socioeconomic profile of the two types of participants (attendees and speakers), followed by the characteristics of the participants' trip to Menorca and the quantified expenditure of both participant types. Finally, Section 6 presents the main conclusions from the study on the impact of the 30th ESPM, as well as some future recommendations and proposals.

The importance of event tourism

Event tourism is a hugely important segment as it generates high revenues, contributes to employment, affects other economic sectors and tourism (hotels, restaurants, etc.), and supports deseasonalisation in destinations. Internationally, 55% of international tourists travelled for leisure in 2019; nonetheless, a significant number of tourists (11%) travel for professional and business reasons (UNWTO, 2020). Within event tourism, the MICE segment is strengthening both economically and in job creation. For example, business tourism in the United States accounted for 21.5% of tourism's total contribution to GDP in 2019 (WTTC, 2020). In particular, the MICE industry represents one million jobs and accounts for 15% of all trips, generating some 27 billion dollars in wages (GBTA, 2016). Spain ranks fourth for international events

(congresses and international conventions) among MICE destinations, with 578 events, although it ranks second for event participation numbers, with 348,728 participants (ICCA, 2020). Barcelona (156 events) and Madrid (154 events) are the top MICE destinations, hosting 53.63% of all international events held in Spain (ICCA, 2020).

According to the Spain Convention Bureau (SCB, 2020), event tourism in Spain generated around 7.016 billion euro in direct economic impact in 2019, 5.7% higher than in 2018; 78% of this income comes from participants, with a further 22% from their travel companions. Additionally, conferences have been the most common event type in Spain. Likewise, Jones and Li (2015) show that MICE sector activity in the United Kingdom has considerable importance compared to other economic activities, generating a gross value added (GVA) in 2011 similar to the road haulage or justice sectors (legal activities), and even higher than the film and audio-visual or pharmaceutical industries.

The data indicate that within the events sector, the MICE segment attracts tourism with a high purchasing power (e.g., Mistillis and Dwyer, 1999), lengthens the season and promotes other segments in the tourism market, such as culture, gastronomy and sports.

The Balearic Islands enjoy several positive features for developing and promoting event tourism in general, and the MICE segment in particular: high-quality hotels, available infrastructure for congresses (convention centres), diverse leisure and cultural attractions, gastronomic appeal thanks to Michelin-starred and renowned restaurants, and regional wines, alongside proximity and links to European cities,

professional companies in the segment, a pleasant climate and natural beauty. All this points to high growth potential for event tourism.

In general, visitors travelling to attend an event, whether MICE, sports, culture and/or social events, have high purchasing power with an average daily spend above sun and beach tourists (Monge and Brandimarte, 2011; Auld and McArthur, 2003; Mistillis and Dwyer, 1999). Getz and Page (2019) point out that international participants in MICE events spend more than tourists who travel for other reasons. There is also consensus that event tourism has a significant economic impact on the destination (Jones and Li, 2015).

In 2020, 18.96 million tourists travelled to Spain, 77.3% lower than in 2019 due to the widening coronavirus pandemic. Of these, 81.98% travelled for leisure or holidays in 2020, 7.16% for work, business, fairs and congresses, and 10.86% for personal or family reasons (visiting family, family events, etc.) (INE, 2022b). Looking at the figures for 2019 (a year without a pandemic), 87.39% travelled for leisure or holidays, 6.48% for work, business, fairs and congresses, and 6.13% for personal or family reasons. The average daily expenditure per person was 183 euro for international tourists travelling for business and professional reasons in 2020 (including event attendance or participation); nevertheless, this is an atypical year due to the pandemic. If we look at the data from previous years, the average daily expenditure per person for the same category was 218 euro in 2019 and 209 euro in 2018, with an upward trend over the last five years (INE, 2022a). This figure is much higher than the daily expenditure per person for tourists travelling for leisure and holidays (139 euro in 2020, 157 euro in 2019 and 147 euro in 2018) (INE, 2022a). All

these data highlight the importance of the MICE tourism segment for the Spanish tourism industry and the economy as a whole. Indeed, by breaking down travel reasons (Table I), we clearly see how international visitors attending fairs, congresses or conventions have a much higher average daily expenditure per person than those travelling for other reasons.

Thus, international tourists travelling to attend fairs, congresses and conventions in Spain had an average daily expenditure of 299 euro in 2019, much higher than those travelling for other reasons (Table 1). Indeed, for all analysed years the average daily expenditure for attendance at fairs, congresses and conventions more than doubles the average daily expenditure of tourists travelling mainly for leisure, recreation and holidays.

INSERT TABLE I

An analysis of the average trip duration for international tourists to Spain over the 2016-21 period according to main travel purpose (Table II) indicates that visitors attending fairs, congresses and conventions usually stay for over four days on average, less than visitors travelling for other reasons.

INSERT TABLE II

In addition to the economic data highlighting the importance of event tourism, certain other positive effects of this type of tourism should be mentioned. On the one hand, deseasonalisation is an important element, given that a major segment of event tourism occurs in low and mid-season months (October, November, January, February, March, and May). On the other hand, it creates a positive image of destinations through promotion by event participants and possible media coverage of

the event in national or international media: newspapers, television. etc. This type of tourism not only benefits contracted companies and associated services for hosting the event directly, but also taxis, hotels, fashion stores, shows and, above all, the economy of the selected city. Whitfield (2007) indicates that prestigious events help host cities to promote themselves.

Scientific and/or academic events: scientific and socioeconomic impacts.

Focusing on the scientific or academic event tourism segment, the concept has not been extensively studied independently, but rather within the events sector encompassing all category types. Hansen, Pedersen and Foley (2020) define an event as scientific or academic when it fulfils three criteria: 1) it attracts the participation of active researchers who exchange results; 2) it must be planned and limited in a physical and temporary space; and 3) it runs for at least two days and researchers from at least three different institutions participate.

Scientific or academic events bring researchers, academics and non-academic professionals together to discuss and disseminate new knowledge. Academic conferences or events become social spaces where researchers and/or professionals meet peers, establish new or maintain existing contacts, explore possible collaborations, or initiate cooperation. For Hauss (2020), participation at these events by young researchers forms part of the learning process to expand their knowledge and research skills. Thus, literature that analyses the social and scientific impact of participating in academic/scientific events (Hauss, 2020; Rivera, 2020) or the impact on the academic socialisation process of young researchers (Hottenrott and Menter,

2020; Kuzhabekova and Temerbayeva, 2018) does exist. Hauss (2020) uses qualitative and quantitative empirical evidence to demonstrate the important benefits of conference attendance for young German postdoctoral researchers in getting together and meeting other researchers with similar interests, which usually results in publications. Likewise, participation in academic events is an important source of information on possible jobs or funding for research (Hauss, 2020), and there is literature based on bibliometric studies that measures the impact of these events in terms of publications, scientific production, etc. (e.g., Lisée, Larivière and Archambault, 2008).

Therefore, scientific events disseminate scientific research results and help R&D progress, the results of which may also contribute to regional or national development. As Hansen, Pedersen and Foley (2020) point out, participating in these events influences the knowledge production process of researchers and academics.

Moreover, these events generate major socioeconomic impact. Visitors to scientific or academic events support different sectors of the tourism industry, especially hospitality, restaurants and leisure. They also have an economic impact on the local and regional economy. The hospitality industry benefits from tourists staying in hotels, frequenting clubs and bars, and eating in restaurants during their stay. The entertainment and leisure industry can benefit from participants as tourists, visiting parks, local festivals, concerts and museums. Therefore, participating in or attending a scientific and/or academic event, booking a tourist package or visiting a destination have both a direct and indirect impact on the local economy. Scientific events not only benefit economic sectors directly related to the different contracted services in

organising events, but also other indirectly related sectors in the tourism value chain (leisure and culture, shops, taxis, etc.). In fact, Rivera (2020) points out that one factor influencing whether to participate in a scientific event, in addition to an interest in networking, is the available tourist options in the host city. However, there is scant empirical evidence and literature that focuses on analysing, understanding, and evaluating the impact of scientific and/or academic events (Hansen and Pedersen, 2018).

Data and methodology

A total of ten courses, 16 meetings and different extracurricular activities were organised for the 30th School of Public Health of Menorca in Lazareto, Mahón (Menorca) between 16th and 25th September 2019. The event attracted many participants from different parts of Spain and other European countries.

The aim of this paper is to analyse the socio-economic impact of the 30th ESPM, using four sources of information to do so: 1) the academic report from the 2019 and previous editions prepared by the ESPM (ESPM, 2020a); 2) the press and communication reports provided by the ESPM (ESPM, 2020b); 3) the information obtained through a survey (fieldwork) of participants at the 30th ESPM, and 4) the academic programme for the 30th ESPM.

According to the academic report, the 30th edition welcomed a total of 749 participants for the different academic and extra-academic activities. Most participants (673) signed up for the two main activities organised by the ESPM: courses and

meetings. Specifically, 243 participants registered for the courses and 430 for the meetings.

Sample and fieldwork

The population comprises all participants including speakers and/or attendees at the course and meeting events at the 30th School of Public Health of Menorca held in September 2019. It should be noted that other individuals enjoyed extracurricular activities organised within the framework of the ESPM, as they were open to a wider audience.

The fieldwork was carried out at the end of each of these activities and supplemented with an analysis of the data contained in the academic report, the press and communication report and the academic programme from the ESPM organisers. Table III shows the technical file for the survey.

INSERT TABLE III

The specific fieldwork to obtain information from participants was performed by handing out a paper survey with a letter explaining the aim of the study and containing instructions on when to answer the survey, after in-person participant registration. Specifically, respondents answered the questionnaire on the last day of their participation. Thus, for example, if a person attended an ESPM course on 16th and 17th September, and another meeting from 23rd to 25th September, they answered the survey on the last day of their participation (25th September). Personal interviews were carried out over those days in September 2019. The time that each person spent filling

in the survey varied between 10 and 15 minutes. The interviews were conducted by using a structured questionnaire with four sections, available in Spanish and English.

The structured questionnaire combined open and closed questions. In the first section, basic information was requested on the socio-economic profile of participants at the 30th School of Public Health of Menorca, as event attendees or speakers/coordinators. The second section requested information on respondents' knowledge of and participation in ESPM activities. The third section analysed the characteristics of the trip to Menorca in order to participate in ESPM activities, depending on whether or not respondents were resident in Menorca. In short, participants were asked about trip expenses, whether they travelled with a companion or not, the number of days they were on the island, how they travelled to the island, how they arranged their transport and accommodation, the accommodation type, the activities they did during their stay and any extra holiday days they took before or after their participation. The final section requested information on how they rated their experience as ESPM participants, whether they intended to attend an ESPM again and their involvement in social networks. Data were tabulated using the SPSS version 27.0 for Windows.

Results and discussion

The general participant profile is a woman with an average age of 45, although if participating as a coordinator, she tends to be older (52 years old). Participants are mostly residents from the other Balearic Islands (Majorca, Ibiza or Formentera), or from Catalonia or Madrid, and work in the public sector, mainly at hospitals, in

regional government or at health centres. They are commonly managers or specialists working in public administration, doctors, researchers or MIR (Resident Medical Intern) and, to a lesser extent, nurses or university professors. The MIRs usually participate as attendees while doctors are generally speakers/coordinators; although master's and doctoral students do attend, medical or nursing students do not participate. Male participants have a greater role as speakers, but there is more gender balance among coordinators.

The youngest participants (under 40 years old) and especially MIR, as well as the oldest participants (over 65 years old) had longer average stays, especially before participating in the scientific event. More than 42% of participants travelled with a companion. Normally the youngest (18-30 years old) and the oldest (over 65 years old), especially MIR and nurses, travelled mainly with friends and family to the event: 81.25% of young people between 18-25, 74% between 26-30 and 66.67% in the case of the oldest participants.

Participants not residing in Menorca arranged their trip through physical travel agencies or directly through the airline or ferry company. A higher proportion of young people and MIR used metasearch engines and online travel agencies to arrange their trip. The most common accommodation type was in traditional hotels and aparthotels. Younger participants preferred tourist apartments, holiday homes and hostels. Mahón was the most common location for accommodation. Satisfaction with the accommodation was high (4.3 out of 5). Participants also took advantage of the gastronomy, sun and beach (especially young people) and visits to natural areas during their stay on the island, with the consequent spending on these activities. More than

86% expressed a desire to repeat the experience and travel to Menorca in the near future to enjoy a holiday.

The results indicate that the average stay of all surveyed participants from abroad was 4.52 days, although with a wide variation. Thus, while 50% stayed between one and three days, 36.02% spent between four and six days, and 13.98% stayed for a period of seven days or more. It is interesting to observe the difference between speakers/coordinators and attendees at the events organised by the ESPM with regard to the average stay on the island (Figure 1). In this sense, speakers/coordinators had a notably longer average stay (7.95 days), while the rest spent 4.29 days on average.

INSERT FIGURE 1

The data for speakers/coordinators reveal that 65.52% stayed on the island for a relatively short period of time (between one and three days), while 17.24% did so for a period of more than six days, and the rest did so for a period of between three and six days (Figure 1). Likewise, the graph shows us that 47.13% of attendees did not extend their stay beyond three days, 39.49% did so for a period of between four and six days, and the remaining 13.18% chose to enjoy the island for more than a week.

The results in Table IV indicate that the average daily expenditure per person for participants at the 30th School of Public Health of Menorca was 152.94 euro, with a clear difference between residents and non-residents in Menorca: the average daily expenditure per person for non-resident participants in Menorca was 160.66 euro and 23 euro for resident participants. The non-resident figure is very different and mostly higher than the daily expenditure per person for an average tourist in Menorca in 2019 of 130.98 euro, for a tourist travelling to Menorca for leisure and holidays in 2019

(135.56 euro) or for an average tourist travelling to Menorca for business (219 euro), work or to attend fairs or congresses (94.16 euro) (IBESTAT, 2021). This means that the expenditure of participants at the annual ESPM scientific event has a very positive impact on the island's economy, since these visitors have a much higher daily expenditure than the usual tourists to the island.

There is a clear difference in expenditure between participants who merely attended activities and those who participated as speakers: 147.32 v 166.94 euro. Participants who were part of the organisation acting as coordinators or sponsors had a much higher average daily expenditure than the rest (194.79 euro per person per day).

INSERT TABLE IV

In analysing expenditure for non-resident participants by category in comparison to resident participants (Table V), we clearly see that the expenditure of participants travelling to the island for the 30th ESPM events was higher across all items: non-resident expenditure on restaurants was almost 32 euro per day, around 66 euro per day for accommodation, 23.24 euro for shopping, over 18 euro per day for car rental, etc. Therefore, participants from abroad (non-resident) spend money that affects the entire value chain of the tourism sector and impacts many economic activities. Nonetheless, resident participants at the 30th ESPM also spent over 20 euro a day on restaurants.

INSERT TABLE V

When we look at the daily expenditure per person according to participant type—attendee, speaker and coordinator/organiser/sponsor—Table VI shows that the average daily cost of accommodation is higher for the three types of participants than

for average tourists to Menorca in 2019 of 23.32 euro (IBESTAT, 2021). They spend more on accommodation, but also on food if we consider spending in restaurants (over 30 euro for all participants), since the average tourist in Menorca spent around 22.49 euro on food in 2019. These tourists also spend on culture, leisure and sports activities.

INSERT TABLE VI

When analysing the average daily expenditure per person according to participant age range at the 30th ESPM (Table VII), we note that among participants coming from outside the island (non-residents in Menorca), those between 51 and 60 years old had a higher daily expenditure per person of 194.01 euro. In turn, the over-41s showed a higher daily expenditure per person than younger participants (under-40s).

INSERT TABLE VII

Among residents, the daily expenditure per person varies more and increases with age, except for the 51-60 age group, which is lower. If we observe the daily expenditure per person according to expenditure item, differentiating between residents and non-residents and by age range (Non-Residents: Table VIII and Residents: Table IX), we first note that from the age of 51 up, residents spend less in restaurants, bars and cafeterias, and seemingly return home for lunch/dinner after the courses and meetings at the 30th ESPM (Table IX). Secondly, resident participants have a higher fuel cost per day than non-residents in most age groups. Thirdly, the average daily expenditure per person among non-residents for other activities (leisure, sport, culture, etc.) is higher than for non-resident participants in all age groups.

INSERT TABLE VIII

Among non-residents (Table VIII), the average daily expenditure per person on accommodation increases with age and is higher than the average daily expenditure per person for accommodation of an average tourist in Menorca in 2019, which was 23.32 euro. Likewise, the average daily expenditure per person in restaurants is also much higher, 31.38 euro compared to 22.48 euro for an average tourist in Menorca. Additionally, the average daily expenditure per person on shopping by non-resident participants in Menorca also increases with age.

INSERT TABLE IX

Lastly, the average cost of registration for courses at the 30th ESPM was 150 euro per course. This expense must be considered when estimating the total cost for participants at this edition.

Bearing in mind that 42.44% of non-resident participants in courses and meetings (673 in total, of which approximately 86% were non-residents, i.e., 579 non-resident participants) attended with a companion (amounting to 246 people), the event mobilised 919 people between participants and companions. Assuming the same daily expenditure per person for companions of non-resident participants, the total expenditure generated by the participants in the 30th edition is shown in Table X.

INSERT TABLE X

In order to calculate the economic impact of this scientific event, we need to consider the average stay of non-resident participants and their companions: 4.52 days. Likewise, a five-day event attendance/participation for resident participants has been assumed (the courses lasted two or three days, and meetings one or two days). Hence, the direct economic impact of the 30th ESPM amounted to approximately

609,911.14 euro and it mobilised 919 people between speakers/coordinators, attendees (673) and companions (246 people).

It should be noted that this is the direct impact in monetary terms generated by the event for the economy of Menorca, although the global impacts are greater. If we add the direct impact from the goods and services demanded directly by participants and companions at the 30th ESPM to the indirect effects from the production of necessary goods and services for intermediate consumption, in the branches of economic activity that supply tourists (e.g. the restaurant service requires fish and meat to prepare dishes that tourists eat, having a direct effect on the agricultural and fishing sector, a different branch to the restaurant sector), the impact is higher.

Taking into consideration that according to the Balearic Islands Tourism Satellite Account (AETIB and IBESTAT, 2014) the tourist multiplier is 1.38, the direct and indirect impact from non-residents amounts to 826,759.57 euro. This figure must be added to residents' direct impact (10,810 euro) and thus, we can conclude that the organisation of the 30th ESPM generated a minimum wealth for Menorca's economy of 837,569.57 euro.

These results confirm the importance of event tourism and, in particular, a scientific event, for the Menorcan tourism industry and its value chain. These findings confirm previous evidence in the literature indicating that tourists travelling to participate in an event have a higher purchasing power and daily expenditure per person than leisure and holiday tourists (Getz and Page, 2016; Monge and Brandimarte, 2011), as well as having a significant economic impact on the destination (Jones and Li, 2015). Visitors participating in the 30th ESPM had a higher average daily

expenditure than sun and beach tourists, confirming previous findings from Monge and Brandimarte (2011), Auld and McArthur (2003) or Mistillis and Dwyer (1999). Thus, scientific events have a significant economic impact on this destination, in line with what Jones and Li (2015) found for other destinations and events.

Conclusions

Event tourism has become a dynamic element in many destinations, so there is an increasing interest in assessing the economic impact of events. Current tourism literature indicates that tourists mainly travelling for business, work, and attending fairs and conferences, spend more on accommodation than any other type of tourist. In general, the profile of tourists travelling to attend an event is one with high purchasing power and higher average spending than sun and beach tourists (Monge and Brandimarte, 2011; Auld and McArthur, 2003). Available literature on the economic impact of event tourism has focused mainly on the MICE segment, as well as sports and cultural events. There is very little empirical evidence and literature that focuses on analysing, understanding and evaluating the impact of scientific and/or academic events (Hansen and Pedersen, 2018).

The present study focuses on analysing the socioeconomic impact of the 30th School of Public Health of Menorca (ESPM), a scientific event hosted in Lazareto, Menorca from 16th to 25th September 2019. Hence, it provides evidence to fill a gap in the literature. The results indicate that the average daily expenditure per person of

non-resident participants in Menorca is 160.66 euro (and 23 euro for resident participants in Menorca), mostly much higher than the daily expenditure per person for average tourists in Menorca in 2019, which stood at 130.98 euro, tourists travelling to Menorca for leisure and holidays in 2019 (135.56 euro) or average tourists travelling to Menorca for business (219 euro), work or to attend fairs or congresses (94.16 euro). Given the average stay of non-resident participants and their companions of 4.52 days and an average attendance/participation of 5 days for resident participants on courses and in meetings, the direct economic impact of the 30th ESPM amounted to approximately 609,911.14 euro and it mobilised 919 people between speakers/coordinators and attendees (673), and participants' companions (246 people).

Moreover, considering that according to the Balearic Islands Tourism Satellite Account (AETIB and IBESTAT, 2014) the tourism multiplier is 1.38, the direct and indirect impact from non-residents amounts to 826,759.57 euro. When we add this to residents' expenditure (10,810 euro), we can conclude that the 30th ESPM generated a minimum wealth for Menorca's economy of 837,569.57 euro.

These results confirm the importance of event tourism and, in particular, a scientific event, for the Menorcan tourism industry and economy. These findings confirm that tourists travelling to participate in a scientific event have a higher purchasing power and daily expenditure per person than leisure and holiday tourists. The paper provides insights for organizers of scientific events and will help them to attract funding for those events.

References

Agencia de Estrategia Turística de las Illes Balears (AETIB) e Instituto de Estadística de las Illes Balears (IBESTAT, 2014), *Cuentas Satélite del Turismo de les Illes Balears 2014,* available: at http://www.caib.es/sites/estadistiquesdelturisme/es/cuenta_satalite_del_turismo_de_las_illes_balears_2014/

Auld, T. and McArthur, S. (2003), "Does event-driven tourism provide economic benefits? A case study from the Manawatu region of New Zealand", *Tourism Economics* Vol 9, pp. 191-201.

CIME (2020), *XXV Aniversario de Escuela de Salud Pública*. CIME. Available at: http://www.evsp.cime.es/WebEditor/Pagines/file/Libro_ESP_Menorca.pdf

Dolasinski, M.J.; Roberts, C.; Reynolds, J. and Johanson, M. (2021), "Defining the field of events", *Journal of Hospitality & Tourism Research*, Vol. 45 No 3, pp. 553–572. https://doi.org/10.1177/1096348020978266

Escuela de Salud Pública de Menorca, ESPM (2019), Programa académico de la XXX edición de la ESPM. Available at: https://evsp.cime.es/ (accessed 10th January 2022).

Escuela de Salud Pública de Menorca, ESPM (2020a), Memorias académicas de las ediciones años 2016, 2017, 2018, 2019.

Escuela de Salud Pública de Menorca, ESPM (2020b), Memoria de prensa 2019.

Getz, D. (2008), "Event tourism: Definition, evolution, and research", *Tourism Management*, Vol. 29, pp. 403–428.

Getz, D. and Page, S.J. (2019), *Event Studies: Theory, Research and Policy for Planned Events* (4th ed.). Routledge. Available at: https://doi.org/10.4324/9780429023002 (accessed 10th January 2022).

GBTA (2016). Economic Impact of Meetings, Events, and Incentive Travel. Global Business Tourism Association. Accessed on 15th December 2021: http://www.gbta.org/usa/governmentrelations/Pages/MEI_EconomicImpact.aspx

Hauss, K. (2020), "What are the social and scientific benefits of participating at academic conferences? Insights from a survey among doctoral students and postdocs in Germany", *Research Evaluation,* Vol 30 No 1, pp. 1-12.

Hansen, T. T. and Pedersen, D. B. (2018), "The impact of academic events: A literature review", *Research Evaluation,* Vol. 27 No 4, pp. 358-366.

Hansen, T. T.; Pedersen, D. B. and Foley, C. (2020), "Academic Events: An empirically grounded typology and their academic impact", *Event Management*, Vol. 24, pp. 481-497.

Hertanu, A. and Boitor, A.B. (2012), "S.T.E.P. Analysis on Event Tourism"*, Bulletin of the Transilvania University of Braşov*, Vol 5 No 54, pp. 25-30

Hottenrott, H. and Menter, M. (2020), T"he Socialization of Doctoral Students in the Emergence of Structured Doctoral Education in Germany", in Weidman, J. C.

and Deangelo, L. (eds), *Socialization in Higher Education and the Early Career: Theory, Research and Application*, pp. 197-219. Springer International Publishing.

IBESTAT (2021), Datos Estadística Gasto y Perfil del Turista- EGATUR de les Illes Balears. Available at: Datos estadísticos : Economía : Turismo : Gasto y perfil de los turistas (EGATUR) : Gasto de los turistas con destino principal las Illes Balears por periodo, isla y país de residencia. (caib.es) (accessed 9th March 2022).

ICCA (International Congress and Convention Association) (2020), ICCA Statistics Report 2019, Available at: https://es.iccaworld.org/searchsite.cfm?cx=010512806986151457630%3A69yazfikppk&cof=FORID%3A11&ie=UTF-8&spgid=250&q=2019+ranking (accessed on 12th March 2022)

INE (2022a), EGATUR. 2021 Statistics. Available at: INEbase / Servicios /Hostelería y turismo /Encuesta de gasto turístico. Egatur / Últimos datos; https://www.ine.es/jaxiT3/Datos.htm?t=23995 (accessed on 28th March 2022).

INE (2022b), Frontur. 2021 Statistics. Available at: INEbase / Servicios /Hostelería y turismo /Estadística de movimientos turísticos en frontera. Frontur / Últimos datos; https://www.ine.es/jaxiT3/Tabla.htm?t=23985&L=0 (accessed on 28th March 2022).

Jago, L. and Dwyer, L. (1986), *Economic evaluation of special events: A practitioner's guide;* Common Ground Publishing; Australia.

Jones, C. and Li, S. (2015), "The economic importance of meetings and conferences: A satellite account approach" *Annals of Tourism Research*, Vol. 52, pp. 117-133.

Kuzhabekova, A. & Temerbayeva, A. (2018). The Role of Conferences in Doctoral Student Socialization. *Studies in Graduate and Postdoctoral Education*, 9, 181–196.

Lisée, C; Larivière, V. and Archambault, É. (2008), Conference proceedings as a source of scientific information: A bibliometric analysis. *Journal of the American Society for Information Science and Technology*, Vol 59, pp. 1776-1784.

Mistillis, N. and Dwyer, L. (1999), "Tourism gateways and regional economies: the distributional impacts of MICE", *International Journal of Tourism Research*, Vol 1, pp. 441-457.

Monge, F. and Brandimarte, P. (2011), "MICE Tourism in Piedmont: Economic Perspective and quantitative Analysis of Customer Satisfaction," *TOURISMOS: An international multidisciplinary Journal of Tourism*, Vol 6 No 1, pp. 213-220.

OECD (2017), "Major events as catalysts for tourism", *OECD Tourism Papers*; OECD Publishing, Paris.

Rivera, R.M.F. (2020), "Eventos científicos itinerantes y su impacto en el turismo de ciudades sede: El caso de Maceió, Brasil"*, Revista de Turismo, Patrimonio y Desarrollo,* Vol 13, pp. 1-17.

Romero, A. (2015), "Turismo MICE: Elementos y destinos más representativos del sector". *TecnoHotel.* Available at: Turismo MICE: elementos y destinos más

representativos del sector - TecnoHotel (tecnohotelnews.com) (accessed 4th February 2022).

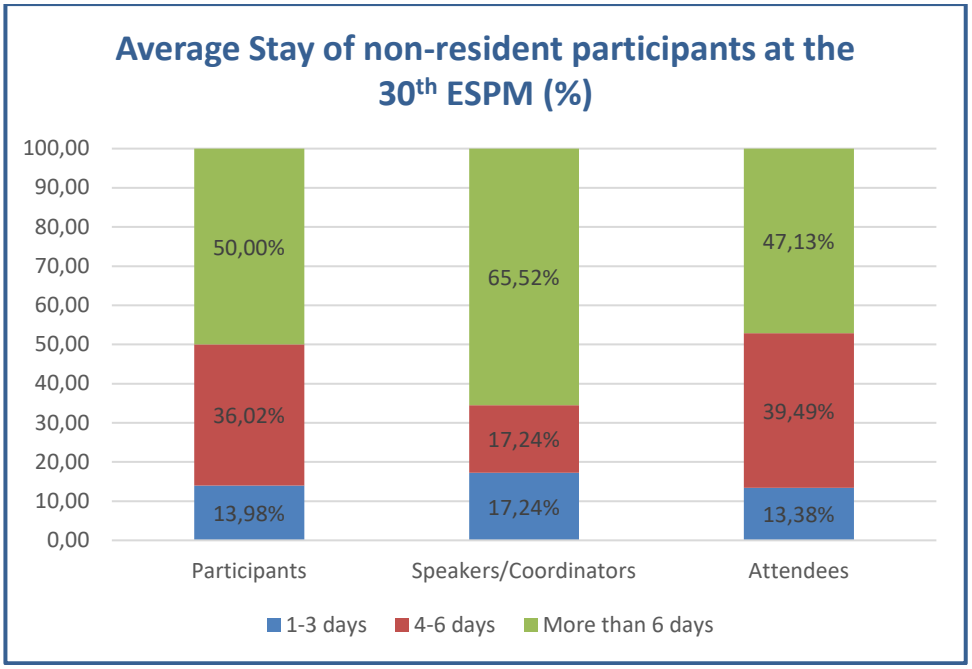
SCB (2020), Informe Ejecutivo del Turismo de Reuniones. Available at: Spain Convention Bureau | INFORME EJECUTIVO DEL TURISMO DE REUNIONES – 2019 (scb.es) (accessed 20th November 2022).

UNWTO (2020), UNWTO Tourism Highlights. 2019 Edition. Available at: International Tourism Highlights, 2019 Edition (e-unwto.org) (accessed on 8th August 2022).

Whitfield, J.E. (2007) "Why build purpose-built conference venues? Forecasting new build", *Journal of Retail & Leisure Property*, Vol 6 No 1, pp. 47-60.

WTTC (2020), Travel & Tourism Economic Impact 2019. World Travel & Tourism Council. Available at: Global Economic Impact Trends 2020.pdf (wttc.org) (accessed on 8th August 2022).

Figure 1. Average stay of non-resident participants at the 30th ESPM.



Source: compiled by authors.

Table I. Evolution of the average daily expenditure per person for international tourists according to the main reason for travelling to Spain (2016-2021).

REASON FOR TRAVEL	2016	2017	2018	2019	2020	2021
Average (Total)	130	137	146	155	134	137
Business, professional reasons	202	192	209	218	184	171
Attendance at fairs, trade fairs, conferences and conventions	331	320	339	299		
Cross-border, seasonal worker	96	105	121	112		
Other work and business reasons	208	201	221	228	191	181
Studies (education and training)	87	94	94	93	91	86
Visiting relatives and/or friends	91	98	100	99	82	93
Voluntary health treatments	187	146	143	191	144	152
Religious reasons or pilgrimages	102	101	102	112		99
Shopping, personal services	153	186	146	129		98
Leisure, recreation, holidays	132	139	147	157	139	142
Cultural tourism	184	169	172	183	166	182
Sports activities	153	161	160	156	138	152
Sun and beach tourism	119	123	130	138	125	134
Other leisure type	150	163	169	176	148	139
Other	93	114	125	111	93	126

Source: compiled by the authors based on INE data (2022a).

Table II. Evolution of the average length of trips according to the main reason for travelling to Spain (2016-2021).

Average Length	2016	2017	2018	2019	2020	2021
Average (Total)	7,88	7,74	7,80	7,11	7,82	8,15
Business, professional reasons	5,63	6,00	5,20	5,12	5,65	6,30
Attendance at fairs, trade fairs, conferences and conventions	4,00	4,42	3,71	4,57		
Cross-border, seasonal worker	15,62	10,62	9,48	9,72		
Other work and business reasons	5,27	5,69	4,84	4,85	5,75	6,14
Studies (education and training)	32,67	32,87	39,9	32,92	30,56	44,69
Visiting relatives and/or friends	8,72	8,95	8,51	8,55	9,88	11,63
Voluntary health treatments	7,6	11,03	8,18	8,21	7,06	7,13
Religious reasons or pilgrimages	12,63	11,82	13,06	13,49		15,31
Shopping, personal services	3,94	4,63	4,88	4,22		5,97
Leisure, recreation, holidays	7,67	7,57	7,34	7,00	7,57	7,84
Cultural tourism	5,82	6,42	6,16	5,78	6,09	6,17
Sports activities	6,37	6,14	6,06	6,08	7,03	7,25
Sun and beach tourism	8,51	8,53	8,35	8,12	8,46	8,53
Other leisure type	6,62	6,37	6,47	6,3	7,33	7,68
Other	8,05	5,53	6,28	5,83	7,25	5,78

Source: compiled by the authors based on INE data (2022a).

Table III. Technical File. 2019.

STUDY TECHNICAL FILE	
UNIVERSE	673 Participants on courses and meetings at the 30th ESPM 2019.
SAMPLE	441 participants on courses and meetings of the ESPM.
SAMPLING ERROR	2.74% (assuming finite universe, 2 sigma confidence level).
DISPERSION	Maximum variability in answer categories, p = q = 0.5.
METHODOLOGY	Personal interview, self-administered, carried out during the 30th ESPM, after participating in the last session.
DATES	16-25th September 2019.
DATA MANAGEMENT	SPSS version 27.0 for Windows.
QUALITY CONTROLS	CC/ESOMAR.

Source: compiled by the authors.

Table IV. Average daily expenditure per person for participants at the 30th ESPM.

Average daily expenditure per person	Total
Total	152.94 €
Non-resident in Menorca	160.66 €
Resident in Menorca	23.00 €
Attendee	147.32 €
Speaker	166.94 €
Organiser/Coordinator/Sponsor	194.79 €

Source: compiled by the authors.

Table V. Average daily expenditure per person of participants in XXX edition of ESPM by type of expenditure.

TYPE OF EXPENDITURE	Total	Non-Resident	Resident
	Average daily expenditure per person		
Tourist Package	81.93€	81.93€	0.00€
Aeroplane/Ship	53.17€	53.17€	0.00€
Accommodation	65.85€	65.85€	0.00€
Restaurants	31.90€	31.90€	20.29€
Supermarket	8.58€	8.58€	0.00€
Shopping	23.24€	23.24€	0.00€
Car rental	18.41€	18.41€	0.00€
Fuel	7.63€	12.55€	7.63€
Public Transport	15.14€	15.15€	1.65€
Culture	5.96€	5.96€	10.00€
Leisure	8.35€	8.35€	0.00€
Sports	14.42€	14.42€	0.00€
Other	27.33€	27.33€	10.00€
TOTAL	**152.94€**	**160.66€**	**23.00€**

Source: compiled by the authors.

Table VI. Average daily expenditure per person for participants at the 30th ESPM by participant and expenditure type.

TYPE OF EXPENDITURE	Attendee	Speaker	Coordinator/ Organiser/ Sponsor
	Average daily expenditure per person		
Tourist Package	70.04€	70.33€	200.00€
Aeroplane/Ship	49.97€	66.77€	53.92€
Accommodation	62.05€	80.98€	80.14€
Restaurants	30.34€	31.08€	35.89€
Supermarket	8.47€	10.40€	11.94€
Shopping	23.71€	21.58€	23.61€
Car rental	16.90€	28.86€	17.63€
Fuel	7.38€	14.84€	8.24€
Public Transport	15.45€	13.33€	12.95€
Culture	6.28€	4.48€	6.67€
Leisure	8.06€	8.39€	10.00€
Sports	13.46€	18.27€	0.00€
Other	19.33€	50.00€	0.00€
TOTAL	**147.32€**	**166.94€**	**194.79€**

Source: compiled by the authors.

Table VII. Average daily expenditure per person for participants at the 30th ESPM by age range.

	Age Range						
	18-25	**26-30**	**31-40**	**41-50**	**51-60**	**61-65**	**Over 65 years old**
AVERAGE DAILY EXPENDITURE BY NON-RESIDENTS	78.28€	108.10€	143.62€	179.96€	194.01€	167.60€	171.72€
AVERAGE DAILY EXPENDITURE BY RESIDENTS	11.00€	24.60€	21.50€	25.67€	16.83€	3.,00€	---

Source: compiled by the authors.

Table VIII. Average daily expenditure per person for non-resident participants at the 30th ESPM by age range and expenditure type.

Average daily expenditure per person- Non-Resident Participants		Age Range						
		18-25	26-30	31-40	41-50	51-60	61-65	Over 65 years old
Tourist Package	87.63€	27.38€	11.00€	85.50€	150.00€	127.08€	66.67€	0.00€
Aeroplane/ship	53.35€	29.05€	38.19€	45.62€	59.57€	65.57€	56.80€	35.49€
Accommodation	65.57€	26.66€	34.35€	61.48€	75.85€	78.63€	81.67€	78.83€
Restaurants	31.38€	7,.11€	17.51€	24.59€	40.49€	38.46€	33.41€	45.31€
Supermarket	8.70€	6.67€	9.98€	5.87€	6.72€	12.94€	11.18€	2.50€
Shopping	23.36€	2.00€	8.14€	13.09€	29.42€	28.82€	21.48€	18.89€
Car rental	18.39€	9.27€	10.76€	12.32€	22.68€	29.68€	24.45€	24.03€
Fuel	8.04€	3.62€	5.52€	6.58€	9.47€	12.54€	7.06€	13.45€
Public Transport	15.11€	4.32€	10.99€	12.98€	14.59€	20.92€	13.81€	16.27€
Culture	6.11€	0.00€	4.86€	1.62€	4.52€	9.94€	5.08€	5.00€
Leisure	8.35€	3.50€	5.79€	6.68€	7.86€	11.33€	7.67€	7.50€
Sports	14.42€	0.00€	14.37€	4.10€	16.43€	33.33€	0.00€	0.00€
Other activities	24.45€	0.00€	0.00€	0.00€	30.00€	3125€	0.00€	12.09€

Source: compiled by the authors.

Table IX. Average daily expenditure per person for resident participants at the 30th ESPM by age range and expenditure type.

Average daily expenditure per person-Resident Participants		Age Range						
		18-25	26-30	31-40	41-50	51-60	61-65	Over 65 years old
Restaurants, bars and cafeterias:	19.82€	11.00€	25.75€	13.00€	21.50€	15.80€	15.00€	0.00€
Fuel	11.79€	0.00€	6.67€	15.00€	13.83€	11.00€	10.00€	0.00€
Public Transport	1.65€	0.00€	0.00€	0.00€	1.65€	0.00€	0.00€	0.00€
Culture	10.00€	0.00€	0.00€	0.00€	0.00€	0.00€	10.,00€	0.00€
Other activities	10.00€	0.00€	0.00€	0.00€	10.00€	0.00€	0.00€	0.00€

Source: compiled by the authors.

Table X. Total and Daily Expenditure per person.

	Total Expenditure	Average Daily Expenditure	Total Expenditure
Expenditure of Non-Resident Participants	93,022.14 euros	160.66 euros	420,460.07 euros (Average stay = 4.52 days)
Expenditure of Companion Non-Resident Participants	39,522.36 euros	160.66 euros	178,641.07 euros (Average stay = 4.52 days)
Expenditure of Resident Participants	2,162 euros	23.00 euros	10,810 euros (Average days of participation = 5 days)
DIRECT IMPACT OF 30TH EDITION OF ESPM	134,706.50 euros		609,911.14 euros
INDIRECT IMPACT OF TOURISTS (NON-RESIDENTS)	50,366.91		227,658 euros (Multiplier effect according to the Tourism Satellite Account of the Balearic Islands 1.38)
TOTAL DIRECT AND INDIRECT IMPACT RESIDENTS + NON-RESIDENTS	185,073.41 euros		837,569.57 euros

Source: compiled by the authors.