

BETWEEN VIRTUAL AND IN-PERSON: ACADEMIC DECISION MAKING IN THE ERA OF HYBRID EVENTS

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Abstract

Scientific events play a fundamental role in academic and professional tourism, allowing for the dissemination of knowledge, networking and experiences exchange between experts from different fields. With the advance of technology, online events have gained ground, especially after the Covid-19 pandemic, raising questions about whether face-to-face events can be definitively replaced. This study aims to identify the participants' preferences to attend physical and/or online scientific events, exploring trends, challenges and preferences in holding these meetings. The empirical study is based on an interview script applied to 22 tourism university professors and researchers, exploring trends, challenges and preferences in holding these meetings. The results indicate that the respondents recognize a sum of advantages as well as disadvantages in both formats – physical and online. Although online events have become a viable and advantageous alternative in many respects, face-to-face events remain essential for networking building deeper connections and enriching experiences. However, the choice of destination will continue to be a relevant factor for physical events, influencing participants' decisions based on infrastructure, cultural attractions and cost-effectiveness. The future of scientific events will probably be marked by a hybrid approach, balancing the best of both formats. This study provides theoretical and practical contributions to the Meetings Industry (MI) sector. These trends indicate that organisers of scientific events need to adapt their formats to meet the new demands of participants, guaranteeing valuable and accessible experiences for the global academic and professional community.

Keywords

Scientific events, Tourism, Technology, Meetings, Hybrid events

Introduction

Scientific events (SE) are part of the MICE sector and play a fundamental role in academic and professional tourism, allowing for the dissemination of knowledge, networking and the exchange of experiences between experts from different fields (Sari, 2023). With the advance of technology, online scientific events (OSE) have gained ground, especially after the COVID-19 pandemic, raising questions about whether physical scientific events (PSE) can be definitively replaced (Brown & Drakeley, 2023). This empirical study is based on an interview script applied to participants in SE, exploring trends, challenges and preferences in holding these meetings.

This study aims to identify the participants' preferences to attend PSE and/or OSE, exploring trends, challenges and preferences in holding these meetings. For that, a sum of specific research goals were defined, as follows: (i) to analyse the frequency and most common destinations of travel to professional, scientific and academic events: (ii) to assess participants' perceptions of the possibility of digital/remote events permanently replacing physical events, (iii) to identify the main advantages associated with taking part in online/distance events, (iv) to explore the main perceived benefits of attending face-to-face events, (v) to investigate the factors that most influence the decision to take part in events, whether online or physical, and (vi) to understand the aspects most valued by participants concerning the location of face-to-face events.

Methods

This work was carried out using a qualitative methodology, based on collecting primary data from university lecturers and researchers. To this end, a research tool was developed in the form of a structured interview script, comprising a set of questions aligned with the study's objectives. Data collection took place in 2024, between November and December of 2024. The research instrument was administered indirectly, and responses were obtained in written form by e-mail. A total of 22 valid responses were collected. The data treatment followed the content analysis technique, and 5 categories were created.

Results and Main Findings

The respondents are mostly female teachers (81,2%), compared to 18,2% of male teachers. On average, academics attend to 4.1 SE per year. However, the frequency of participation in SE shows a wide variation, ranging from 1 to 10 annual events, making it possible to define 3 levels of frequency, considering a set of factors, as described in Table 1.

Levels of attendance	No. of SE per year	Trends and observations
Low attendance	1-2 events	Some participants mention attending only one event a year due to academic requirements or personal preferences. In some cases, this participation involves international travel.
Medium attendance	3-5 events	Most interviewees fall into this category, attending both national and international events. The number varies according to the period analysed, considering pre- and post-pandemic.
High attendance	6-10 events	Some academics mentioned taking part in many events, especially when there are virtual opportunities, which reduce costs and logistical barriers.

Table 1. Levels of attendance to SE
Source: own elaboration

The pandemic context has also fuelled a trend towards hybrid events, combining face-to-face and digital participation. Not surprisingly, the pandemic period significantly influenced the frequency of OSEs, compared with the pre-pandemic period. Some interviewees reported a reduction in participation during the pandemic period, nationally and internationally, while others took advantage of virtual events to increase the number of events attended. In other cases, this trend continued in the post-pandemic period, allowing teachers and researchers to take part in a greater number of events, considering that this format reduces costs and logistical barriers. Nevertheless, some interviewees expressed a desire to resume travelling to scientific events.

Determinant Factors on SE Selection

The results show that the decision to take part in a scientific event, whether online or face-to-face, is influenced by various factors. Those factors are mainly relating to the event's topic and its relationship with the participant's area of research and teaching, considering its feasibility within their own agenda. Also, the presence of recognised keynote speakers, the indexation to prestigious databases (Scopus, Web of Science) and the possibility of publication in scientific journals are decisive factors. The existence of networking opportunities, to interact with other professionals and establish strategic contacts, also strongly influences the decision.

The cost-benefit ratio is mainly considered in the case of PSE. Travelling and accommodation costs are evaluated in relation to the expected benefits, and the destination and infrastructure of the event, as well as the perceived safety, can have a significant impact on the decision to take part.

Finally, the programme's scientific quality and the event structure, the diversity of activities and even the elements of surprise can make the experience more attractive. Events that offer different experiences, such as interactive workshops and technical visits, tend to attract more participants.

Resuming, participants evaluate scientific relevance, networking opportunities, organisational quality, costs and location before choosing to attend scientific events. In this way, the interviewees emphasised that events that combine face-to-face and digital participation (hybrid format) are likely to become more popular in the future, as they offer both a sum of advantages.

The relevance of destination in PSE.

Regarding PSE, as mentioned before, destination attractiveness assumes an important factor for attendance. In what concerns destination selection, is usually related to the reputation of the event, geographical proximity and the tourist attractiveness of the location. Many participants combine academic and leisure travel, taking the opportunity to explore the culture and tourist attractions of the main destination. Table 3 describes the sum of 7 criteria identified by the respondents and the corresponding factors that are most valued at the event destination.

Criteria	Main factors
Relevance and attractiveness of the destination	Climate and preference for places never visited before combine the scientific event with new cultural and tourist experiences
Accessibility and infrastructure	Transport (direct flights, efficient connections) proximity of the event to accommodation
Gastronomy and tourist attractions	Local culinary experience visits to museums and access to cultural heritage
Safety and travel cost	Safety of the location cost of travelling, namely in international travel
Extra activities	Excursions and social activities organised by the events
Contact with nature	Places with natural landscapes and outdoor events for a more relaxing experience
Metropolises as a logistical choice	For large-scale events, metropolitan cities are preferred because of the infrastructure available

Table 3. Criteria and determine factors at the venue (destination) for PSE
Source: own elaboration

Thus, it is possible to conclude that PSE participants choose a destination based mainly on accessibility, infrastructure, cost, safety and opportunities to explore new cultures and experiences.

Online SE versus Physical SE

The decision to participate in scientific events varies significantly among the interviewees, depending on factors such as academic requirements, professional interests, budget, and preference for OSE or PSE. Analysing the data collected allows us to identify some important trends, described on Tables 3 and 4.

Advantages	Description
Cost reduction	Greater accessibility for researchers without travel funding Elimination of travel, accommodation and food costs Lower registration fees for many events Better value for money, allowing access to more events
Time savings and flexibility	No need to travel, allowing for better diary management Makes it easier to juggle work, classes and family commitments Possibility of taking part in several events at the same time Flexible schedules, allowing participation without compromising other activities
Greater accessibility and inclusion	Allows attendance at a greater number of scientific/academic events Democratises access for researchers with less funding
Reduced environmental impact	Lower carbon footprint (no need to travel and consume resources) Promotes sustainability
Ease of organisation	Require less logistics and can be realised with less infrastructure

Table 3. Advantages of OSE
Source: own elaboration

The main advantages of participating on OSE indicated by interviewees are, therefore, related to cost savings, time savings and a positive environmental impact. Despite these advantages, many interviewees emphasised that the lack of human contact reduces the quality of the experience and the effectiveness of academic interactions. Due to that, PSE continue to be highly valued for their immersive experience and impact on building networks, as shown in Table 4.

Advantages	Description
Networking and Social Interaction	The chance to meet and interact personally with other participants Greater immersion and exchange of knowledge facilitates the exchange of ideas, the formation of partnerships and the development of scientific collaborations
Complete Sensory Experience	Greater immersion and exchange of knowledge More dynamic interactions (coffee breaks, informal conversations and spontaneous encounters are essential for learning)
Focus and engagement	Increases attention and motivation Eliminates distractions that occur in the virtual environment (other tasks, home environment)
Cultural experience at the destination	Possibility of getting to know new cities, cultures and institutions, making the experience more enriching
Fewer technical problems	Absence of internet outages or technical problems

Table 4. Advantages of PSE
Source: own elaboration

Globally, PSE are valued mainly for its socialising character, networking opportunities and a more complete and immersive experience. However, the choice between PSE and OSE therefore depends on the individual needs and priorities of each participant.

The future of SE

The perspectives got divided when the interviewees were asked about the possibility of online scientific events permanently replacing physical scientific events. Some respondents believe that online events will grow steadily and may even become the norm in the future. Some responses indicate that up to 70 per cent of events could be digital in the future due to time and cost savings.

The main challenges for digital events include the difficulty in establishing informal connections, the lack of immersion and the wear and tear caused by spending too much time in the virtual environment. For many, networking is one of the most valued aspects of scientific events, and face-to-face interaction with academic colleagues facilitates the creation of new collaborations and opportunities, promoting deeper interactions. Most participants mentioned that physical scientific events will remain essential and are unlikely to be completely replaced, as they provide experiences and interactions that cannot be replicated in the virtual environment. Additionally, physical presence also contributes to economic impact, promoting tourism and boosting sectors such as hotels and transport.

However, there is a consensus that the hybrid model (both face-to-face and online participation) will be predominant. The rise of the hybrid modality is seen as the most viable and inclusive, and this will be the dominant format in the future, combining digital advantages with the need for face-to-face contact, as stated by Sá, Ferreira, & Serpa (2019). This trend can already be seen in several scientific and academic events, which are now offering both face-to-face and remote participation, as it is the case of the International Conference in Information Technology & Education (ICITED) or the International Conference on Tourism Technology & Systems (ICOTTS), just to name a few. The hybrid format allows for greater accessibility and cost savings, especially for researchers who don't have funding for travelling, making it more accessible and expanding the audience. The greater flexibility is seen as an advantage, as also stated by Hammoud, Tawfik, & Mohamed (2022), allowing researchers to take part in events without having to take time off work or family, and combining with the environmental benefits of a smaller carbon footprint associated with travelling, particularly on an international scale.

As such, data reveals a diversity of opinions on the possibility of digital scientific events permanently replacing face-to-face scientific events. Participants emphasise the advantages of online events but point out that the face-to-face experience remains fundamental for social interaction, networking and academic immersion. However, there is a consensus that the hybrid model will predominate in the future.

Conclusion

The dynamics of scientific events are constantly evolving, driven by digitalisation and changes in participants' preferences, as stated by Sadd et al. (2014). Although online events have become a viable and advantageous alternative in many respects, face-to-face events remain essential for building deeper connections and enriching experiences. It is therefore

possible to conclude that the hybrid format might be the main trend for academic, scientific and professional events, combining the flexibility of digital with the richness of face-to-face interactions. Digital events offer convenience and accessibility, but they don't completely replace the richness of face-to-face interactions, which are critical for networking, cultural exchanges and deepening academic partnerships. However, online events stand out in terms of environmental impact, as less travel means less carbon footprint. Therefore, scientific event organisers need to adapt their formats to meet the new demands of participants, guaranteeing valuable and accessible experiences for the global academic and professional community.

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