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Research Article

Filipe Segurado Severino*

Perception of events management students in relation to environmental sustainability: case study in Portugal

https://doi.org/10.2478/ejthr-2023-0016
received April 14, 2022; accepted October 6, 2023

Abstract: Tourist-oriented events have relevant impacts on the dimension of environmental sustainability. Without proper planning, those impacts could manifest as harm to the surrounding environment. An effective measure for dealing with these impacts is the appropriate education of event managers. By shaping visitors' perceptions as they are formed, it is possible for such events to transmit values and knowledge about environmental concerns, leading to future action and the creation of sustainable events that can make a difference.

This research examined event management students' perceptions of environmental sustainability, their most important values, and whether they incorporated them into their event-organisation practices. With the development of a theoretical framework, an empirical investigation was implemented through a qualitative analysis based on interviews with nine groups of Portuguese students who were in their final academic year. Direct observations were also conducted at six events.

The results revealed a positive correlation between environmental concerns and the academic training of these future event managers. Crucially, behaviours that students exhibit and their beneficial effects lead to their effectiveness in practice, which may be reflected in their future work activity.

Keywords: Education; Events; Perception; Sustainability; Tourism

***Corresponding author: Filipe Segurado Severino,** Estoril Higher Institute for Tourism and Hotel Studies (ESHTE);
Centre for Tourism Research, Development, and Innovation (CiTUR), Estoril, Portugal, Email: filipe.severino@eshte.pt

1 Introduction

The relationship between tourism and events has been the subject of extensive research, as events are vital to tourism activity and have experienced significant growth in recent years (Getz & Page, 2020; Quinn, 2009; Stokes, 2008). The connection between these two fields lies in the fact that travellers travel to attend an event but also visit a destination and engage in additional tourism activities (Zanella, 2003). Likewise, the larger the events, the more domestic and even international tourists they will attract. Thus, event tourism is a form of tourism that specialises in events, but it also involves much more than the event itself, including the migration of resources from various areas, such as organisations, sponsors, and potential resources (Getz & Page, 2020).

Event tourism is undeniably an expanding field as well as a prominent experience in the leisure sector, with significant effects on society as well as economy and environment (Jr. & Ruschmann, 2010; Marujo, 2015). The effects of these events extend beyond just the positive ones within the host country or community and may include negative effects on adjacent cultures and environments, especially when they attract a large number of tourists (Yuan, 2013). Their future expansion will lead to a greater number of effects on societies with more apparent repercussions, resulting in increasing concern about sustainability. This concern stems from the fact that events can be used to achieve positive results in the environment in which they are developed, but without proper care, they can have negative effects on the environment, heritage, or culture of the regions in which they occur (Cavagnaro et al., 2012).

Participants in events, whether locals or tourists, are also becoming aware of the problems that poor event management can cause. Thus, they are calling for measures to increase environmental awareness so that negative impacts can be mitigated, or positive aspects generated,

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to benefit the environment where an event is held (Cavagnaro et al., 2012).

From this perspective, the appropriate education of event organisers has been demonstrated to have a significant impact on their future activity. This is because an appropriate awareness of environmental issues, when imposed immediately on individual development, enables a shift in perception toward a more conscientious citizenship, which translates into the effective implementation of practices based on what is learned (Holfelder, 2019; Venske, 2021). Furthermore, it is possible to accomplish the level of sustainability desired by persuading communities to adopt attitudes, values, and knowledge that will be implemented responsibly in the future, with a realistic and accurate perception of the current environmental situation (Dagiliūtė & Niaura, 2014). Thus, training appears to play a crucial role in equipping aspiring event administrators with the necessary skills for future action.

Nevertheless, it is informative to examine event management students' current perceptions of sustainability-related events, including what they value most and how they incorporate sustainability into their events. Accordingly, this study developed the following research question:

Are students in event management aware of environmental sustainability, and do they incorporate sustainable values into the events they organise?

This study aimed to examine students' perspectives on event planning in the tourism industry, as well as their implementation of environmental knowledge and sustainable values. The integrated concepts of education and sustainability in event planning were conceptualised through a literature review, followed by semi-structured interviews with student groups enrolled in event management-related tourism courses and direct observations of the events they organised. The collected data were then analysed to determine whether a correlation existed between the students' perceptions and their actions, and whether the connections they had formed influenced their decisions.

2 Literature Review

2.1 Event-Organisation Education and Sustainability

The presence of event tourism has grown exponentially, manifesting in various forms such as conferences, festivals, and sporting events (Getz & Page, 2020; Vieira, 2015). It is a sector of the tourism industry with great potential, and particular skills, experience, and knowledge are necessary for an organised event to be a success (Perry et al., 1996).

Although formal education and training are not required to plan an event or work in this field, event organisers should have some prior experience, gained through volunteering, internships, or previous jobs. They need to be able to deal with the ongoing stress of organising an event, become familiar with the reality they work in, and be prepared for unexpected situations or challenges (Fulton, 2021; Ryan, 2016). The knowledge acquired through certified training enables future event managers to work more effectively in this field, which is experiencing rapid growth and increasingly demanding clients. This is forcing event organisers to innovate their events based on the fundamentals of event creation (Lockstone-Binney et al., 2013; Ryan, 2016).

There are several certificates and courses pertaining to the organisation of events, but the most frequently recommended (and highly regarded) are academic certifications, as indicated by the Bureau of Labour Statistics (2018); specifically, degrees in events, tourism, management, communication, or hotel management are desirable. The more that event management and planning training focuses on promotion, communication, attention to detail, organisational management, event evaluation, customer service techniques, stakeholder development, legislation, trend analysis, and sustainability, the more beneficial this training will be (Millar & Park, 2013).

Training in the field of events management can be a positive differentiating factor, given that errors made due to a lack of management skills in this field can be catastrophic (Perry et al., 1996). Through proper education, it is possible to transmit the strategic foundations of a successfully organized event, striking a harmonious balance between the affected economy, society, and environment (Presbury & Edwards, 2005; Millar & Park, 2013). In fact, care for sustainability is increasingly a standard consideration among event planners – something that is not

only important for audiences (as a point of attraction and reputation) but holds long-term value for the organisers. Understanding this topic is crucial for obtaining a full understanding of the various areas affected by tourism; new event managers will be able to operationalise this concept in any circumstance (Dickson & Arcodia, 2010; Millar & Park, 2013; Venske, 2021). The study of trends for the purpose of optimising events is a crucial topic, and sustainability – a growing trend – is a topic of increasing interest to impart to event organisers (Millar & Park, 2013; United Nations Environment Programme, 2012).

As the paradigm of events continues to expand, the organisation of events is becoming an increasingly promising career. It is essential to nurture these skills through proper training with relevant experience, so that managers understand the level of market demand, know how to respond to trends, can innovate in the face of existing competition, and can create a sustainable balance in the local effects of their events (Lockstone-Binney et al., 2013; Venske, 2021).

2.2 Sustainable Events

Events have both positive and negative impacts on the locations in which they are held, affecting social, economic, tourist, commercial, political, physical, and ecological interests (Daniels et al., 2004; Severino, 2017). Due to their growing frequency and magnitude, these events have extensive consequences that may require intervention (Cavagnaro et al., 2012). Sustainability in event management is required to reduce their impact on natural resources, which can simultaneously affect interconnected regions (Raj & Musgrave, 2008). Preparation is crucial to the success of events and can even have a long-term positive impact on the region of concern by enhancing the economy or promoting the region's image, so long as a sustainable balance exists between the three pillars of event impacts – economic, environmental, and social (Raj & Musgrave, 2008).

Due to market demands and environmental saturation, the administration of the event area must consider sustainability to more effectively utilise the event's surroundings (Yuan, 2013). Future trends, such as those associated with sustainability, can therefore serve as a vital differentiator for a locale competing with other destinations for tourism (Lockstone-Binney et al., 2013).

In this context, sustainable events are defined as "events that positively impact on people, planet and profit and thus contribute to fulfilling the economic, socio-cultural, and environmental needs of involved stakeholders, including the hosting community" (Cavagnaro et al., 2012, p.201). Events are highly influential in spreading and sharing knowledge, with intriguing potential for promoting global sustainability. Limiting their consequences while encouraging excellent practices is feasible (BCSD Portugal, 2012).

Sustainable events are increasingly aware of their effects on the primary pillars of action. They may examine concerns connected to materials, food, and transportation, acknowledge possible repercussions, and declare when they have been mitigated or avoided (Sultana et al., 2020). Sharing information motivates event attendees to also support the cause, and event organisers can serve as role models in this regard (Cavagnaro et al., 2012).

The structure of sustainable events must be based in sustainability, with management that respects principles such as the following: (i) commitment (connecting with local communities); (ii) encouragement (involving all stakeholders a voice in developing the principles promoted at the event); (iii) revocation (reducing damage to the economy and ecosystem where it occurs); (iv) organisational structure (having well-delineated tasks and functions for positive attitudes); (v) transparency and longevity (analysing and educating all stakeholders about activities and future investments); (vi) optimal location (ensuring accessibility and convenience balanced with a sustainable policy); (vii) education (teaching event stakeholders optimal practices); (viii) duality (finding products, services, and facility innovations that may be reused or recycled); (ix) leaving no trace (removing waste and reusing materials); and (x) strategic management (building a value chain that accurately identifies sustainability initiatives) (Kilkenny, 2006; Raj & Musgrave, 2008).

According to the Business Council for Sustainable Development (BCSD), sustainable events generate added value for companies that sponsor or promote them (as well as the public and the community) by providing an illustration of citizenship, as well as managing their reputation and image in accordance with expectations (Spatrisano & Wilson, 2007; BCSD Portugal, 2012). Sustainability reduces expenses, guarantees permits, and improves quality of life (BCSD Portugal, 2012; Trigo & Senna, 2016). To achieve these benefits, however, an organisation must take well-defined steps to achieve its sustainability goals, such as establishing and communicating standards; monitoring results; interacting with the local community; identifying and using necessary resources; and selecting destinations, facilities, food, accessibility features, and transportation with care (BCSD Portugal, 2012).

Sustainable events can also increase positive attitudes by expanding the scope the term to include not only

environmental factors, but also social, economic, and cultural ones. Such attitudes bring benefits before, during, and after the event, and promote sustainable actions that contribute to global development (Trigo & Senna, 2016).

2.3 Perception of Environmental Sustainability

Today, people are increasingly concerned about issues caused by the interaction between humans and the environment (Yapici *et al.*, 2017). Not only do people assume greater personal responsibility for environmental issues, but there also tend to be incentives from local authorities and communities to demonstrate exemplary attitudes and positions (United Nations World Commission on Environment and Development, 1987). In reaction to the historically abusive relationship between humans and the environment, environmental stewardship and the desire to protect nature are on the rise. This is a result of people's perception of risks regarding the present fragility of the environment (Yapici et al., 2017).

From this perspective, people's attitudes (defined as a style of thinking about people, concepts, and objects) and perceptions of environmental issues are closely related (Eilam & Trop, 2012). The perception of environmental danger can be broken down into the following three components: (i) cognitive (beliefs and knowledge); (ii) affective (emotional reaction); and (iii) behavioural (response based on present or previous behaviour (Upham et al., 2009). The perception of risk is related to the likelihood of injury or illness for a specific reason, in this case human exploitation of natural resources (Yapici et al., 2017).

Attitudes and positions originate from individuals' reported impressions of reality, which lead them to build attitudes and adopt positions based on their present and personal understandings of the environment (Reigota, 1991; Okamoto, 2002). By contrast, perception is the "process by which people receive, organise and interpret their environment" (Bowditch & Buono, 2004, p. 75). It is one of the determinants of how individuals assume and conduct themselves, since it imputes value to perceived objects based on the meanings assigned by society, and also because individuals provide their purpose or function (Bowdich & Buono, 2004; Pereira et al., 2013).

Environmental perception can be categorised into the following three levels: (i) the ideal of untouched nature – an extreme naturalistic vision that limits human environmental interference to the minimum level, usually entailing a simple lifestyle without the use of highly detrimental factors; (ii) nature as a repository of resources available to humans – where the environment's main function is to provide for human needs in the service of human comfort, without addressing our connections with it (the culturally prevalent view, though that is changing); and (iii) the interconnection of humans and the natural environment – respecting the use of environmental resources and the ecosystem's carrying capacities with a production models that minimise raw material extraction and waste creation and prioritise clean technologies (the current, globalising view that brings contemporary man closer to nature) (Fernandes & Pelissari, 2003; Reigota, 1991).

The sustainability movement has made people more aware of their influence on the environment, its limits, and how to care for it (Han, 2021; Trigueiro, 2012). Thus, environmental perception affects attitudes, leading to the individual and group behaviours necessary for sustainable cooperation between humans and nature in a globalising and sustainable vision (Almeida, 2007; Camargo, 2003).

3 Methodology

After evaluating experts' opinions on sustainability events and environmental problems, this study proceeded through the two following steps to address the study's aims and research questions: (i) a deductive process (a qualitative method) using semi-structured interviews with nine groups of students in their final academic year to understand their environmental values; and (ii) a qualitative analysis through direct observations of six events organised by the same group of students to determine whether they put into action the values they espoused in the first step.

In the initial phase, the model was implemented in one of the most prestigious higher institutes of hospitality and tourism in Portugal, located in the Estoril region. The Estoril Higher Institute of Tourism & Hotel Studies (ESHTE) offers academic courses on event tourism. Accordingly, a bachelor's degree is followed by the opinions of experts regarding the optimal training required for event manager certification (Perry et al., 1996). At ESHTE, the bachelor's degree programme most closely aligned with this topic is titled "Leisure Management and Tourism Entertainment", with a course on this subject in the third year of study in which students learn how to organise an event. Interviews were thus conducted with groups of students (each containing an average of five individuals) in their final year of study to ascertain their perceptions of environmental

sustainability and which values addressed in the course are most important to them.

The interviews were semi-structured, with the group disclosing, among other things, their perceptions and what they value most, serving as a portrait of the study's representative reality. Initially, a date was set (29th March 2019) to review the student event proposal submissions and present the research to be conducted with them. Interviews were then scheduled for 12th April 2019.

Each group of students was interviewed on the specified date, with the enumerated questions being asked and a spokesperson gathering the group's collective responses. Nine out of the 12 existing student groups in the final year of their bachelor's programme were interviewed, including five day-course groups and four night-course groups. The average duration of the nine interviews was 29 minutes, with the shortest lasting 17 minutes and the longest lasting 48 minutes.

With a total of 12 questions, the interviews covered the following five distinct dimensions: (i) interviewee characteristics and application work; (ii) their academic training with respect to events; (iii) their perceptions about sustainability and environmental concerns; (iv) their applied event practice and environmental concern; and (v) their level of academic training in events and environmental sustainability. The study sought to understand the participants' interpretation and perception of environmental issues, as well as their willingness to apply sustainable ideas.

The first section of the interviews consisted of questions concerning the students' prior experience, as well as the event they were organising. The second and third sections focused on the group's perception of the relevance of their studies to the developing skills in event and environmental sustainability, as well as the values and practices they deemed most essential for implementation in events. The final two sections centred on the event that the group was planning, evaluating whether they had contemplated incorporating an environmental component as well as their awareness of the potential impacts and benefits of combining academic training with environmental concern.

Therefore, direct observations were conducted on a sample of six events organised by the interviewed work groups to address questions regarding the incorporation and communication of the analysed environmental sustainability practices. A checklist (Appendix 1) was used on the day of each event to investigate a total of 35 parameters within the following six dimensions: (i) "food and beverages", with checkpoints pertaining to the selection of menus and alternate options, biological certification of food served, and strategies pertaining to quantities and food leftovers; (ii) "communication and promotion", including the implementation of digital media, its sustainability awareness, and alternative event communication strategies; (iii) "transportation", which included an evaluation of the event's accessibility and the availability of environmentally favourable transportation options; (iv) "merchandising and souvenirs", which investigated whether the items sold were recyclable or reusable; (v) "energy and water resources", which determined whether there were initiatives for reducing energy and water consumption; and (vi) "physical waste", which pertained to the presence of recycling facilities, alternatives to plastic and paper, and the use of recycled or biodegradable materials.

The checklist was developed using examples from universities and organisations certified in the field of sustainability, such as Griffith University, Lehigh University, the University of Waterloo, the European Organisation of Supreme Audit Institutions, and the MeetGreen Agency (Eurosai, 2014; Griffith University, 2016; Lehigh University, 2017; MeetGreen, 2018; University of Waterloo, 2016). For a more accurate comparison, the total points of conformity were added together; the events with the highest sum and percentage were deemed the most environmentally sustainable, with a maximum of 35 points or 100%.

The selection of events to study centred on the first six occurrences, the schedule of which is detailed as follows: (i) "Família Fit", an outdoor sports event held on May 11th; (ii) "Erotismo Con'Vida", an event that explored erotic-themed art, held on May 12th; (iii) "Fado sobre Azulejo", a cultural event in a museum featuring Portuguese fado music, held on May 18th in the afternoon; (iv) "Panóplia", an event with a mix of music, art, and tattoos, held on May 18th at night; (v) "Jazz It", an outdoor musical event held on May 25th; and (vi) "Act for the Future", an event aimed at raising awareness of environmental sustainability, held on May 26th.

Once the data had been collected and transcribed, they were manually analysed globally. Thematic content analysis was used to locate dialogued subjects and categorise the interviews for easier analysis. The data collected through direct observation were organised and analysed descriptively. In sum, the information on the subject of investigation was connected and the secondary objectives were justified, thereby ensuring that the primary research question was answered.

4 Results and Discussion

After considering all of the steps outlined in the previous section, it was possible to design an investigation that effectively addressed the defined objectives, which were as follows: (i) to determine the event-management students' perceptions of environmental sustainability, and whether their current studies had influenced these concerns in any way; and (ii) to determine whether the students had incorporated these values into their practices.

The study's main methods can be summarised as follows: (i) the characterisation of academic education for event management and whether it includes environmental sustainability issues; (ii) the analysis of students' perceptions of their courses in helping them understand what they value most; (iii) the observation of students' event organisation practices, to determine whether these concerns were incorporated and how they are transmitted; and (iv) an understanding of the impacts of sustainability-related training. The findings and data crossover were based on a set of strategic characteristics, with each area portrayed in a way that was validated by the interviews and/or the event analysis.

Regarding the classification of studies for students majoring in event management, even though they are not required to work in the field, these studies are a distinguishing and critical factor for them in the job market, alongside practical experience. The participants believed that in-depth knowledge of these areas can lead to improved event planning by preventing errors and issues in the various sectors affected by events. They also believed that an education based on sustainability and a harmonious balance between the various sectors is required to achieve long-term benefits for the economy, society, and environment.

The opinions of the interviewed groups indicated that, in addition to providing positive preparation for the professional world, training specifically in events enables appropriate lessons to be passed on to future managers, shaping attitudes and fostering an openness to action that might not develop otherwise.

Sharing practical experiences in conjunction with learning appropriate implementation methods allows for the correct transmission of values. It also imparts valuable knowledge to the students of these courses, making them aware of the salient themes and environmental issues. The groups interviewed were in complete agreement that their professors were aware of the topic and that the classes incorporated evaluation criteria pertaining to environmental concerns. The sustainability concepts are explained accordingly, with the constant use of real-world examples and case studies to enhance comprehension. In addition, the students believed that these practices will encourage action in the future by becoming part of their innate thoughts, while also distinguishing them in the professional world.

Furthermore, the study observed that the area of environmental sustainability is accorded a critical importance and high value in these courses. This suggests the need for it to be a core structure of events-related instruction, as well as for students to be informed and assisted in increasing their awareness of the topic.

Regarding the analysis of students' perceptions of these courses, most of the interviewees surveyed (89%) expressed a broad view of environmental issues. Each group was shown more than 10 different precautions to be taken with events in relation to the environment, as well as the optimal methods for incorporating these values into events. This was a crucial factor in understanding the initial perceptions of the students, who mentioned that many of the values and concerns they highlighted had been implemented over the course of their bachelor degree. This indicated that environmental care is already ingrained in the education of future event managers. The students even indicated that they are evaluated explicitly on the topic of environmental sustainability, suggesting a positive correlation between student perception and academic training.

As shown in Figure 1, the precautions mentioned by the groups revealed that their primary concerns were directed toward the reduction and reuse of objects and resources (78%), followed by recycling and eco-friendly modes of transportation (67%).

From this perspective, not all students agreed with the methods for incorporating these values into their event planning, with 78% of respondents expressing agreement. For these students, raising awareness was the most important method to implement. Other methodologies mentioned by the students were based on the organisation team's practical example of sharing innovative and ecological ideas, as well as incentives for participants and the organisation, internal communication, and the transmission of values through lectures and souvenirs (33–56%). Even though the students shared the same learning experience, they had different environmental priorities, resulting in divergent opinions. Despite this, the vast majority believed that promotion, or how the message is conveyed to the end-consumer of events, is the primary means for sustainability education.

All the groups shared the same perception in economic terms of the advantages of applying these ideologies to the events, as depicted in Figure 2, as well as the

benefits to the environment. This indicated that there are gains in the form of a long-term reduction in costs. Moreover, 55% of respondents believed that these practices have a positive impact on culture (in the sense of increasing concern, educating, and raising awareness), society (in the sense of fostering the desire to see oneself as part of the ecological community and promoting local tourism), and organisational positioning (offering a positive environmental image). Thus, practices in environmental sustainability, even if they have benefits in multiple regards, always have an economic component when they are implemented, which can be attractive to their organisers and stakeholders.

Concerning the event management practices of the students and their incorporation of environmental concerns, 50% of the analysed events achieved more than half of the criteria on the checklist developed for sustainable environmental events; this indicates a high level of student concern in this area. Although one of the events was entirely focused on sustainability (achieving the highest score, at 77%), another ignored this topic – that is, it did not indicate an intent to implement environmental care in its event – and thus received a score of 31%.

As depicted in Figure 3, even though environmental sustainability was not the focus of the remaining events, the students organising them demonstrated a commitment to preserving some environmental values in their practices by achieving satisfactory scores on at least half of the analysed parameters. A correlation may exist between the students' subsequent practice in their events and the fact that they had already considered these values prior to their application, resulting in positive checklist scores. This may be because these practices were emphasised during their academic formation.

According to the analysis depicted in Figure 4, the primary issues addressed in the events concerned food and beverages (79% of which were consumed at the analysed events), merchandise and souvenirs (67%), and physical waste (61%). By contrast, transportation was the least-considered parameter in the analysed cases (43%), and only one of the events exhibited a particular concern for transport. Moreover, while two of the events showed

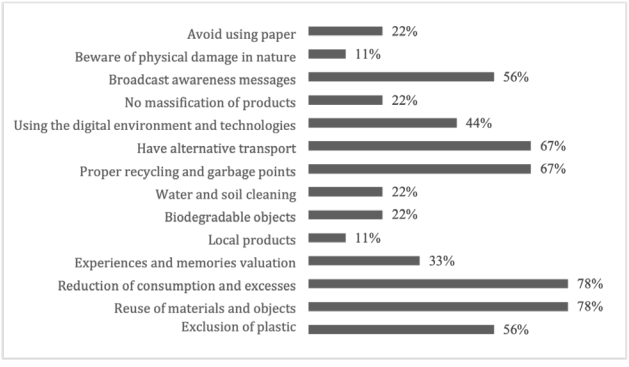


Figure 1: Perception of event management students about environmental concern

Source: Own research

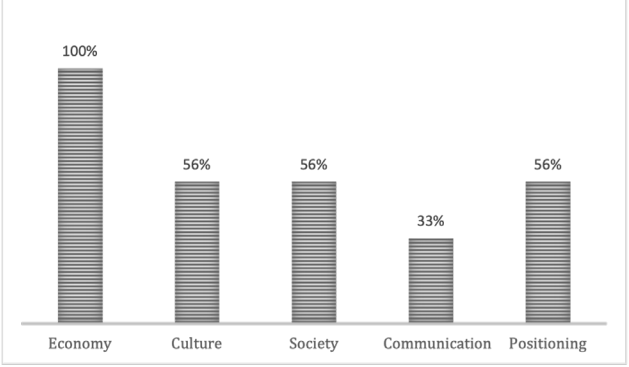


Figure 2: Students' perceptions about the value of environmental sustainability in events

Source: Own research

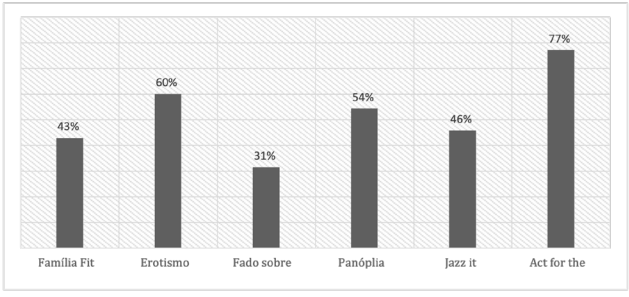


Figure 3: Checklist scores for the studied sustainable environmental events

Source: Own research

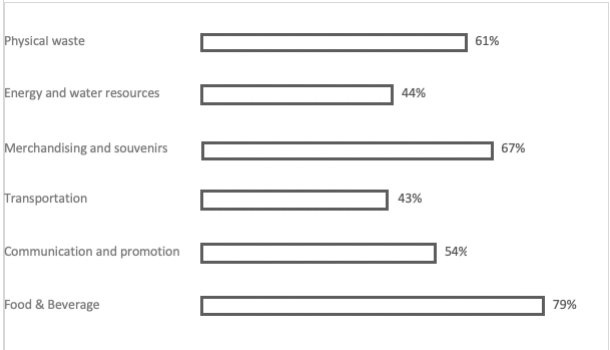


Figure 4: Main issues of environmental concern addressed in the events

Source: Own research

general concern for all parameters, two others disregarded many of these points, while the remainder remained primarily concerned with food-related issues.

The most-considered aspects of food and beverages were the excessive production of food, the availability of "finger food" (i.e., small portions that do not require cutlery or plates), and the presence of vegan or vegetarian options, at 83% of the events analysed. The certification of food with recognised organic logos was the least-considered factor (50%).

Regarding communication and promotion, 83% of the events valued the use of various technologies and digital media as a tool for promotion, while only one considered transmitting these values through activities, workshops, or lectures on their practices.

Ease of access to the event was the most-valued parameter among the events analysed in terms of the transportation dimension (83%), even though only a small percentage of practices (17%) concerned the availability of collective transport options and roads for non-motorised transport and walking.

Concerning merchandise and souvenirs, experiences and memories were encouraged as souvenirs for all events in lieu of physical items.

In addition, while there were measures to conserve and reduce water consumption in general, for energy and water resources, no restrooms demonstrated measures that reduced their use of this resource.

Finally, the events demonstrated a concern for the management of "physical waste" by ensuring the presence of appropriate containers for rubbish and cigarettes, as well as promoting the reuse of decorations. However, limited consideration was given to reducing product packaging or substituting it with sustainable alternatives (17%), such as eliminating plastic or polystyrene materials (17%). There was a notable focus on clearly defining the colours of garbage and recycling bags (33%) to ensure proper sorting and disposal.

Regarding the correlation between the perceptions of the interviewed students and the integration of these values into their actions, as depicted in Figure 5, it was evident that, apart from one group, the majority expressed efforts to incorporate their perceived values during the interviews (70% conveyed their presented values). Furthermore, in nearly all cases, they successfully executed the actions necessary to implement these values in their practices (80% fulfilled the requisite actions for implementation). Therefore, this study observed that the students primarily engaged in the environmental initiatives that were established during their academic pursuits, resulting in favourable outcomes that increased environmental sustainability. In reality, the students spontaneously implemented a greater number of sustainability measures than originally intended, indicating that several of these practices had been ingrained by their educators and were implemented without conscious deliberation.

A general concern existed among the students about environmental sustainability, which is emphasised in their education as future event managers and is even a criterion for evaluation in their event management practices. The students demonstrated sufficient knowledge on this topic, resulting in the conscious or unconscious incorporation of environmental concerns into their events, even when the environment was not the primary focus. Considering that events can be a positive means of transmitting values, and that it is possible to raise awareness among individuals through education, future event organisers should and will implement these practices and values in an innate manner. It is increasingly a trend and a requirement that an event manager must consider to ensure their event's success in the short and long term.

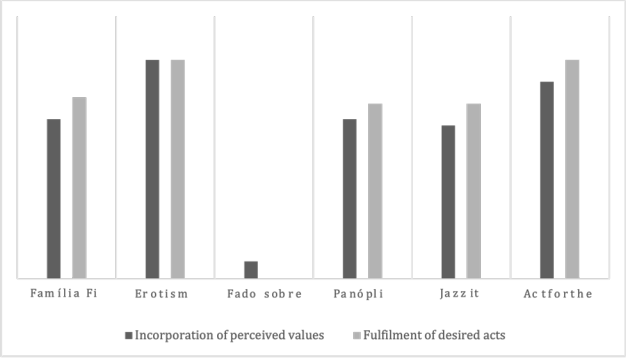


Figure 5: Relationship between the perception of sustainable values and their incorporation into the events

Source: Own research

5 Conclusion

Events occupy a large portion of people's social lives and have repercussions in numerous areas; thus, they can play a critical role in driving sustainable environmental development because, without proper care, great imbalances can occur in the economy, society, and environment (Gonçalves & Umbelino, 2017; Jr. & Ruschmann, 2010; Lima & Careto, 2006). A sustainable event provides advantages without compromising future generations' resource consumption; creates a favourable image for participants; and may inspire industry alternatives to its development (Jones, 2017; Lück & Perneckey, 2013). To create sustaina-

ble events that benefit communities or future generations, event organisers must incorporate environmental sustainability from the beginning (Venske, 2021).

This study investigated the perceptions of environmental sustainability in events among event-management students in Estoril, Portugal, to determine whether their training had had an impact on their values, and whether these values are reflected in their practices. In this phase of the study, we concluded that the initial research question could be answered in the affirmative. We saw a concern and awareness about environmental sustainability in students related to event organisation that had been transmitted at the academic level through materials and tests, and thought through at the theoretical level as well as the practical. The students used and incorporated most of the investigated values into their activities, even when the present theme was not their main emphasis.

From an early inquiry and approximation with students, it was clear that they already possessed ideals of environmental sustainability that had been embedded and reinforced during their academic preparation. The students demonstrated a variety of techniques with which they were familiar as they suggested them for tourism and events, highlighting those they were considering using in their final assessment events. Some of the practices they planned to incorporate into their events included the reduction of consumerism, reuse and recycling of materials, availability of alternative modes of transportation, exclusion of plastic, and promotion of environmental consciousness.

Furthermore, it was evident that the majority of the students had incorporated environmentally sustainable practices into events, employing even more sustainable practices than those they enumerated. Therefore, there was a high success rate for grading them on our criteria for environmental sustainability at these events. In conclusion, a pervasive concern about sustainability already existed among these future event organisers, and they attributed some of this concern to what they had learned during their studies.

Through the use of empirical methods, the primary objective of this study was achieved. That is, this study was able to determine how students in event organisation programs perceive environmental sustainability and which values are most important to them, thereby illuminating the connection between the values implemented in their events and their practices.

The primary limitation of this study was its analysis of students from a single institution and region. It would be possible to gain a more broadly applicable understanding of event management students' behaviours toward the environment through additional research. Future studies could expand the sample to include students from other regions, as well as analyse the perceptions of trainees with varying levels of education.

In general, the evidence suggests a positive correlation between environmental concern and academic training, which has beneficial implications for future event managers. This study's findings will provide students with a theoretical foundation and facilitate the execution of environmental considerations in future events, whether those considerations are conscious or unconscious.

Bionotes

Filipe Segurado Severino holds a PhD in Tourism, having completed his thesis with events specialization. He earned his Master's degree in Hotel Management, focused on event tourism, and his Bachelor's degree in Leisure Management and Tourism Entertainment. He is a Post-Doctoral Scientific Research Fellow in the SHIFT Project (Sustainability-oriented, Highly interactive, and Innovation-based Framework for Tourism Marketing). He is also an Invited Assistant Professor. His research interests include tourism, events, hospitality, leisure, event tourism, event management, tourist entertainment, contents tourism and Japanese popular culture. His professional focus is on entertainment, education and events in tourism, as well as tourist information. Orcid ID: 0000-0002-9865-4664

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Appendix 1

Checklist of environmentally sustainable events

1. Food & Beverage

a) Are there menus with seasonal, fresh, organic and/or local foods?

b) Is water served from dispensers and/or from sustainable alternatives to plastic bottles such as glass jars, bottles, and glasses?

c) Are there foods certified by the organic logo of the European Union ('Bio') or similar?

d) Are there vegetarian and/or vegan options?

e) Is the food generally served in bulk, and not in isolation?

f) Is food produced without excesses, in correct quantities?

g) Is the food served in small snacks, so you can eat without the need for utensils?

h) Are food scraps donated to institutions, shared at the end with the organization and/or encouraged for guests to take home?

2. Communication and promotion

a) Is the digital medium and social networks used to promote the event, instead of physical flyers and posters?

b) Are activities, workshops or lectures carried out during the event that encourage good environmental sustainability practices?

c) As an alternative to printed programs, are projectors and different technologies used to communicate with participants during the event?

d) Are aspects related to environmental concerns at the event clearly conveyed to the participants (before and during the event)?

3. Transportation

a) Is the use of environmentally friendly means of transport to get to the event promoted and encouraged (trams, bicycles, among others)?

b) Is information provided on possible public transport for travel to the event?

c) Is accessibility to the event easy and with more than one transport option?

d) Are collective transport options offered to participants (e.g., shuttles), provided by the organization of the event?

e) Are there lanes dedicated to non-motorized transport and pedestrians, as well as parking for them?

4. Merchandising and souvenirs

a) Are certified and sustainable products offered/sold, such as recycled or recyclable, and/or products that can be reused in everyday life (such as mugs or water bottles)?

b) Are experiences and memories encouraged as souvenirs rather than physical materials?

c) It is used reusable bags or bags (no plastic)?

5. Energy and water resources

a) Are energy saving initiatives promoted during the event, in relation to lighting, energy and electronics?

b) Are there measures to preserve and reduce water consumption (e.g., timers and/or companies that supply water)?

c) Do the bathrooms use measures without water and/or reuse of it?

6. Physical waste

a) Are there organic recycling points throughout the event?

b) Are various recycling points available for both plastic, glass and/or paper, with proper identification?

c) Are the containers for garbage and cigarettes sufficient for the space and well identified?

d) Is the colour of the garbage and recycling bags well defined (specific colors for recycling and black for common garbage)?

e) Does the event use projectors, technologies, and the digital medium as an alternative to paper?

f) When paper is needed, is it printed on both sides and/or recycled, and is there an option to recycle it at the end of the event?

g) Is product packaging minimized and/or replaced with sustainable alternatives (such as woven bags)?

h) Is the event decoration recycled, reused, or donated to other events?

i) Are reusable towels or timer dryers used instead of paper in bathrooms?

j) Are objects and utensils used that can be reused or are biodegradable?

k) Are participants and/or the organization encouraged to bring their own water bottle, coffee cup or utensils?

l) Is plastic or any material made with polystyrene used at the event?