Chapter 3 Impact Culture and the Circular Economy in the Tourism Industry: An Analysis of Challenges and Recommendations for Sustainability



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Introduction

Tourism is an essential part of the economy in many regions around the world, as it is a major driver of growth. However, as environmental and social concerns gain traction, there is a pressing need to address its impacts. The circular economy, which prioritises resource efficiency, waste reduction and reuse, is an opportunity to transform the sector and move towards more sustainable, responsible models.

The circular economy is defined as an economic model in which resources are used efficiently, minimising waste generation and maximising recycling and reuse. This approach implies a shift in the way we produce and consume towards a more sustainable, responsible model. Implementing the circular economy in the tourism industry can generate substantial environmental and economic benefits. According to the European Commission's circular economy in tourism report, these benefits include reducing greenhouse gas emissions, creating green jobs, improving competitiveness and reducing costs (Einarsson & Sorin, 2020). In addition, according to the World Travel & Tourism Council's (WTTC) study, the circular economy can help tourism businesses to reduce costs and improve their long-term sustainability, while mitigating their environmental footprint (World Travel & Tourism Council & Harvard T.H. Chan, 2022).

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However, its implementation also poses challenges, such as lack of knowledge and training, dependence on external factors (for example, local infrastructure and business cooperation), and the need for cultural and behavioural changes among consumers and tourism businesses. In this sense, impact culture plays a crucial role in driving the adoption of more sustainable and responsible behaviours. According to Clark (2014), impact culture refers to the adoption of behaviours and practices that generate positive, sustainable change, and its scarcity could contribute to the lack of innovation and redesign which has been identified in the Valencian Region.

In 2021, Spain took significant steps towards sustainability in tourism. The Ministry for the Ecological Transition and the Demographic Challenge launched a rural recovery plan with a series of initiatives and measures aimed at combating depopulation and boosting the development of sustainable destinations in rural areas, thus promoting the circular economy (Ministerio para la Transición Ecológica y el Reto Demográfico, 2021). Likewise, the Plan to modernise and boost competitiveness in the tourism sector intends to mobilise billions of euros to make the industry more competitive, promoting sustainability and the circular economy (Gobierno de España, 2021). Moreover, new trends that have emerged after the Covid-19 pandemic have generated a growing interest in experiences and destinations linked to health and wellness, with the circular economy being one of the main trends in wellness tourism (Instituto Valenciano de Tecnologías Turísticas, 2022).

This chapter presents the results of a Participatory Action Research (PAR) process carried out in the provinces of Castellon, Valencia and Alicante in 2022, as part of the InnoEcoTur project. The aim of this study was to define strategic recommendations for the implementation of the circular economy in the tourism industry. In this context, we underline the relevance of culture in driving the transition towards the circular economy.

The Valencian Region's Strategic Tourism Plan highlights the importance of the circular economy for the sustainability and competitiveness of the sector and promotes its implementation through efficient waste management, resource use and the promotion of local, seasonal products and services (Secretaría Autonómica de Turismo & Instituto Valenciano de Tecnologías Turísticas, 2020). It highlights the need to forge robust alliances between the different tourism stakeholders to enhance the circular economy and promote sustainability. Given the huge potential for the implementation of circular practices in the industry, the emphasis is placed on the need for a culture that encourages and supports this transition. The Strategic Plan and the Tourism Sustainability Plan rolled out by Visit València (2022) run in this direction and are committed to promoting the circular economy. These plans include measures for its implementation, such as recycling and reuse of waste, the promotion of sustainable products and services and the efficient management of water and energy resources.

Participatory Action Research Methodology with Tourism SMEs to Facilitate Their Transition to the Circular Economy

This study applies the PAR methodology to analyse the needs and challenges of tourism SMEs in their transition towards the circular economy. This method, which is widely used in the tourism sector and in circular economy projects, involves stakeholders in the research process. A systemic approach and multi-stakeholder collaboration are crucial to kickstart the green, circular recovery process focusing on environmental, social and economic dimensions (Einarsson & Sorin, 2020).

Three participatory sessions were held in Castellon, Valencia and Alicante in 2022. We used a scenario matrix and categorised flashcards to engage participants. The cards were divided into groups based on the Sustainable Development Goals (SDGs), actions for the circular economy (European Commission, 2020), the seven Rs of the circular economy (Arisi, 2020; Capgemini Research Institute, 2021), and previously identified barriers and measures (de Miguel Molina et al., 2022) (see Figs. 3.1, 3.2). The scenario matrix is a tool that encourages reflection and elicits information from participants about the present and the foreseeable/desired future of the circular economy. The toolkit included two large magnetic boards and a set of



Fig. 3.1 Flashcard categories. Source: authors' own, 2023

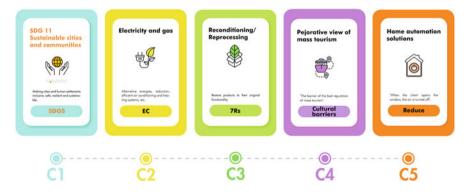


Fig. 3.2 Example of flashcards in the five categories. Source: authors' own, 2023



Fig. 3.3 Stages of implementation of the methodology. Source: Own work, 2023



Fig. 3.4 Detail of the presentation phase of the PAR methodology held in Castellon, in June 2022. Source: InnoEcoTur Project, 2022

70 flashcards. One of the boards showed the cards by category, and the other showed a scenario matrix design, divided into four sections: "This doesn't exist and I don't want it to exist", "This exists but I don't like it", "This doesn't exist but I would like it to exist" and "This exists and I like it".

The methodology was divided into five phases (see Fig. 3.3): presentation, warm-up, group development, group reassessment and conclusions. Each of these phases was carefully planned to ensure the quality of the results.

1. Presentation: The moderator introduced the topic, contextualising the exercise in the framework of the project, and explained the objective and purpose of the activity (see Fig. 3.4).



Fig. 3.5 Detail of the warm-up phase of the PAR methodology carried out in Valencia in July 2022. Source: InnoEcoTur Project, 2022

- 2. *Warm-up:* Two large magnetic boards were used, one with the scenario matrix and the other with the flashcards. The moderator explained to the participants how to complete the matrix collaboratively using the cards, but without interacting with each other (see Fig. 3.5).
- 3. Group development: Participants looked at the final matrix output and discussed possible changes, explaining the rationale for their placement of each flashcard (see Fig. 3.6).
- 4. Group reassessment: Once the group had reached a consensus on the scenario matrix, participants worked together to design strategies to promote the application of circular economy principles. This joint analysis was performed using the matrix and with an online template based on the matrix (see Fig. 3.7). The template addressed five specific questions (see Fig. 3.8), including aspects such as the need to change behaviours, the implementation of a new production model and the adoption of eco-design.
- 5. Conclusions: The moderator gave a short summary of the activity, thanking everyone for their participation.

This methodological approach may limit comparisons between the three sessions as there was a lack of absolute control over the activity. However, this limitation was reduced by applying a uniform design and material. It also had the constant support of the same staff in all the sessions, thus ensuring the consistency of the process in each location.

Furthermore, participant selection was based on both homogeneity and intragroup heterogeneity criteria. The participants, who represented diverse discursive perspectives in relation to the case study, were divided into five different groups. These groups were made up of staff from small and medium-sized enterprises



Fig. 3.6 Detail of the group development phase of the PAR methodology in Valencia, July 2022. Source: InnoEcoTur Project, 2022

(SMEs) in the following categories: hospitality, catering, hotel suppliers, and restaurant suppliers, as well as civil servants working in the tourism industry.

We used our own video recordings and photographs of the activities for the data analysis.

Subsequently, the information from the templates and from the data extracted from the recordings on the distribution and movements of the flashcards in the matrix was compiled, considering the sequence of selection, individual and group distribution of the cards in the matrix, and reiterations from the individual to the group phases. The term 'reiteration' refers to cases where flashcards move into a different quadrant of the matrix between the individual and group phases, indicating a repetition of card selection or distribution. Therefore, flashcards with 'no reiterations' are those that have not moved from the individual to the group phases.

Qualitative and quantitative data analysis was carried out on the information collected. Various analytical techniques were used, including statistical functions, pivot tables and graphs. These tools enabled data to be processed for the exploration of patterns, as well as an analysis of variance.

This chapter focuses on the results from the group work phases (phases 3 and 4), as the data analysis showed that (across all three groups) 90% of the flashcards remained in the same quadrant of the matrix in the individual and group phases.



Fig. 3.7 Detail of the reassessment phase of the PAR methodology group in Alicante, June 2022. Source: InnoEcoTur Project, 2022



Fig. 3.8 Specific questions raised in relation to the strategic recommendations. Source: authors' own, 2023

Results

During the collaborative review of the scenario matrix and the group activity, we identified both strengths and weaknesses in the implementation of the circular economy and the SDGs in the Valencian Region's tourism industry. This analysis was necessary to develop a circular economy culture, as it provided a detailed diagnosis of the current situation to identify areas for improvement.

A favourable perception was observed for the implementation of and support for SDG 15 'Life on land' and SDG 13 'Take urgent action to combat climate change and its impacts', both of which are fundamental to create a culture that seeks to generate positive and significant changes in society and the environment. These SDGs are closely linked to the strategy of 'Reduce', 'Return/Recover' and 'Reuse', which are basic principles to combat pollution caused by plastics, textiles and household products.

In relation to resource extraction and use, SDGs 13 and 15 seek to mitigate negative environmental impacts, such as deforestation, desertification and land degradation, and to promote sustainable agricultural and fishing practices. Additionally, they aim to encourage sustainable travel, and increase the circular potential of batteries to reduce the environmental impact of transportation and improve hazardous waste management. In summary, the main objective of SDGs 13 and 15 is to promote sustainable, circular practices in resource use and environmental management to achieve global sustainable development. Given the Valencian Region's geographical location on the Mediterranean coast and its warm climate, there may be a positive perception and greater sensitivity towards the implementation of SDGs 13 and 15 in the region.

However, a lack of focus on the implementation of SDG 7 'Ensure access to affordable, safe, sustainable and modern energy for all' and SDG 11 'Make cities and human settlements inclusive, safe, resilient and sustainable' was detected, related to the absence of measures to obtain energy from waste, install sustainable lighting, reduce the carbon footprint and improve energy efficiency. Although the Valencian Region has a warm, sunny climate for much of the year, it seems that insufficient attention is given to energy efficiency and sustainable lighting and there are significant gaps in the implementation of sustainable and renewable energy strategies, such as solar and wind power, in the region's tourism industry.

Shortcomings were also detected in SDG 6 'Ensure availability and sustainable management of water and sanitation for all' and SDG 14 'Conserve and sustainably use oceans, seas and marine resources for sustainable development'. Additionally, a lack of focus on water-saving measures was identified, which is key to a coastal region such as the Valencian Region. Although the region has access to the sea and abundant water resources, it faces challenges in terms of sustainable water management, which has a significant relationship with SDG 6. The region is also a major agricultural hub, which implies high demand for water. It is also a tourist area, which implies higher water consumption in hotels, restaurants and other tourist establishments. In addition, the Valencian Region is closely linked to SDG 14 as it is a coastal region that relies heavily on tourism and fishing, and both sectors have a major impact on the marine environment. The region faces major challenges such as overfishing, water pollution and the degradation of marine ecosystems which significantly impact both environmental sustainability and the local economy. Therefore, the implementation of measures to conserve and sustainably use marine resources is essential to achieve sustainable development in the Valencian Region.

Furthermore, the lack of focus on SDG 12 'Ensure sustainable consumption and production patterns' is directly related to shortcomings in 'Recycle', 'Refurbish/

Reprocess', 'Repair/Rehabilitate and Redesign' strategies, plastic footprint reduction, zero landfill and circularity in building life cycles. These strategies aim to promote resource efficiency and encourage the adoption of sustainable practices in both production and consumption. These failures are indicative of the need to cultivate a stronger impact culture in the Valencian Region. The identification of these needs may be related to the fact that tourism is a major driver in the region, representing 15.5% of GDP (Turisme Comunitat Valenciana, 2022). Given that the tourism industry generates significant amounts of waste and consumes many resources, it is essential to adopt sustainable and circular practices in waste management, plastic footprint reduction and efficient resource use.

SDG 12 can also be related to the lack of measures focused on reducing but also on enhancing local products and agroecology. This SDG aims to promote the efficient use of resources and encourages the adoption of sustainable practices in production and consumption. However, the lack of attention to this aspect may negatively affect the promotion of agroecology and local products, which are an important source of sustainable development in the region. In addition, these shortcomings may lead to growing dependence on imported products, which may not meet the necessary sustainability and quality standards.

There was also a notable lack of measures targeting IT tools, the implementation of home automation solutions, electronics and Information and Communication Technologies (ICT), as well as a poor innovative culture. This situation is also connected to the lack of focus on SDG 12, which seeks to promote the adoption of sustainable consumption and production practices and the responsible use of resources and energy efficient technologies and processes. In this context, the lack of a strong impact culture in the Valencian Region could influence this gap.

The identification of weaknesses in the implementation of SDGs 7, 11, 6, 14, and 12 highlights the areas where the impact culture needs to be strengthened. These findings suggest that, despite positive efforts in some areas, the Valencian Region must continue to work to ensure that its tourism sector moves forward in a truly sustainable and environmentally friendly manner.

The dichotomous perception about reducing the industry's plastic footprint, which is seen as a strength and weakness, could be related to the importance of the plastics and rubber industries in the Valencian Region. These sectors come second in the national ranking (Hervas-Oliver et al., 2018) and, in fact, 21% of active Spanish rubber manufacturers are located in the Valencian Region (Instituto Valenciano de la Competitividad Empresarial, 2021).

The dualistic view on energy efficiency, seen as a strength (SDG 13 and SDG 15) and a weakness (SDG 12), could be influenced by the geographical location of the Valencian Region, characterised by a warm, sunny Mediterranean climate most of the year. Although the region has high renewable energy potential in the areas of solar and wind power, the lack of focus on SDG 12 could have a negative effect on the attention paid to energy efficiency and sustainable lighting. This could also be related to the lack of an integrated, holistic view of sustainability in tourism planning and natural resource management, which addresses environmental, social and economic challenges in a balanced way. Tourism planning may be focused on

maximising short-term economic benefits, which can lead to a limited, binary approach to sustainability. Furthermore, the fact that sustainable agricultural practices are seen as a strength, while the lack of measures focused on reducing whilst boosting local products and agroecology is perceived as a weakness may indicate a lack of understanding of the links between the different aspects of sustainability and how to address them holistically.

The lack of gender perspective in circularity is identified in the quadrant "This doesn't exist, but I would like it to exist", which indicates a positive attitude. However, this perception may be conditioned by the use of double negation in the statement, creating confusion, given that the data indicates the presence of vertical and horizontal inequalities in the Valencian Region's tourism industry (Alonso-Monasterio Fernández, 2019).

The flashcards that ranked highest in the overall order of the three activities related to SDGs 14, 11 and 12, which also address the lack of an innovative, circular culture, a lack of consumer awareness, recycling, and rigid legislation in managing food waste and plastics. Therefore, priority was given to flashcards that reflected negative or problematic perceptions, as they seek to raise awareness and promote solutions to address the identified challenges. In all three activities, the flashcards reflecting a lack of innovative culture appeared higher than ninth position, indicating concern about the lack of innovation in the Valencian Region's tourism industry.

All SDGs, except SDG 13, appeared in the top 20 flashcards, demonstrating the relevance of these goals in the tourism sector. The fact that SDG 13 appeared among the last 20 flashcards may be due to the positive perception of its implementation in the region. On the other hand, SDG 14 appeared before the tenth flashcard in all three activities, which reflects the special concern in the Valencian Region given to the protection of the marine environment. Given that it is a coastal region with a major tourist industry, the preservation and sustainable management of marine resources is fundamental to guarantee the availability of these resources in the long term and to maintain the quality of tourist attractions. In conclusion, the concern for SDG 14 in the Valencian Region is related to the need to preserve and sustainably manage marine resources in a context of coastal tourism activity.

The PAR process revealed some consistency in participants' opinions when collaboratively reviewing the distribution of the flashcards in the matrix, although the quadrants "This exists but I don't like it" and "This doesn't exist but I would like it to exist" generated more discussion and reflection. This could also be conditioned by the direct effects of the flashcard colours, as there is a correlation between the average flashcard output as a function of the psychological and physiological effects of the colour of each category (Elliot, 2015; Heller, 2004). Group discussion proved useful in fostering cohesion and collaboration around common goals, especially on critical issues that require further attention in future studies.

During the group reassessment, strategic recommendations for implementing circular economy principles in the tourism sector were compiled. The responses once again emphasised the need for a cultural shift towards increased awareness and responsibility about resource utilisation. The importance of efficient waste and raw material management, the use of sustainable materials and spaces, and the

implementation of measures to reduce waste in products and services were also highlighted. Furthermore, the importance of establishing alliances and synergies between different stakeholders, using the Quintuple Helix approach to drive the transition towards a circular economy in the tourism sector, was emphasised. It is essential to prioritise training and awareness-raising among all actors involved and ensure effective communication to promote the circular economy in tourism.

In short, these findings indicate that, although there are positive signs of an impact culture in the Valencian Region, there are still important challenges that need to be addressed to ensure that the region's tourism industry develops in a truly sustainable and environmentally friendly way. This involves working to strengthen the implementation of the SDGs and circular economy strategies, as well as fostering innovation and digital transformation.

Therefore, the results and group dynamics used helped to identify gaps and opportunities in the implementation of the circular economy and the SDGs in the tourism industry, which is useful for future studies and initiatives in this area. It is important to pay more attention to deficiencies and to promote greater consumer understanding and awareness, as well as the implementation of measures and strategies for more sustainable, responsible production in the tourism industry.

Conclusions

This collaborative study identified strengths and weaknesses in the implementation of the circular economy and the SDGs in the Valencian Region. While good progress was noted in some SDGs and strategies, significant gaps were also detected, such as water management, access to sustainable energy, waste management and sustainable production.

The study highlighted a lack of understanding of circularity and a deficient innovation culture in the industry. However, during the reassessment, key strategies to enhance the principles of the circular economy in tourism were identified, emphasising the need for a cultural shift towards greater awareness and responsibility in the use of resources, waste management, the use of sustainable materials and spaces, and the reduction of waste generated by products and services.

Furthermore, the importance of forging alliances and synergies between different stakeholders to promote the transition towards a circular economy was emphasised. In this regard, impact culture plays a crucial role in fostering changes in attitudes and behaviours and in driving the adoption of more sustainable practices.

In conclusion, this study highlights gaps and opportunities in the implementation of the circular economy and the SDGs in the tourism industry, providing valuable insights for future studies and initiatives. The findings underline the need to improve deficient areas, educate and raise consumer awareness, implement strategies for more sustainable, responsible production, and promote an impact culture. It highlights the importance of a holistic vision that balances environmental, social and economic challenges to achieve sustainable development in the Valencian Region's tourism industry.

Recommendations

Considering the importance of an impact culture, the suggestions for the transition towards a circular economy in the Valencian Region's tourism industry include:

- Implementing actions aimed at reducing energy consumption and improving energy efficiency, with special emphasis on sustainable lighting and the use of renewable energies.
- Implementing measures for water-saving and sustainable management of water resources, which is particularly crucial in coastal regions such as the Valencian Region.
- Promoting sustainable production and consumption to reduce its plastic footprint, boosting agroecology and local products, and encouraging sustainable waste management.
- Promoting home automation solutions, electronics and ICT integration, an innovative culture and measures for efficient use of resources and environmental management.
- Taking a holistic view that recognises the links between the different environmental, social and economic aspects of sustainability.
- Counteracting the lack of consumer awareness and rigid legislation that hampers food and plastic waste management.
- Encouraging sustainable consumption and production, and the responsible use of resources and energy-efficient technologies and processes.
- Promoting environmental education and awareness-raising in the tourism industry.
- Implementing measures to address the challenges of energy efficiency, sustainable water-resource management, plastic footprint reduction, the promotion of agroecology and local products, and innovation in the tourism industry.

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