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# Shared knowledge and competitive advantages for economic diversification through olive oil tourism

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**Abstract:** The economic diversification of rural territories specialised in olive growing is key to the sustainability and resilience of these communities. In this context, olive oil tourism is presented as an innovative strategy to add value to the olive sector, attract visitors and promote public–private synergies. This study aims to determine the competitive advantages of olive oil tourism in the province of Jaén, Spain, using strategic analysis tools that align tourism resources with effective management strategies. Hence, in addition to a questionnaire completed by experts and a specialised literature review, we used the Quality Function Deployment (QFD) matrix, adapted to territorial analysis focused on tourism. This methodology correlates the territorial resources of olive oil tourism (TRs, the ‚what') with management specifications (MSs, the ‚how'). The analysis determines the relative importance of the TRs, the objective values and the technical importance of the MSs, and the direction of improvement. Furthermore, it includes an evaluation of competitiveness and estimates the technical-competitive positioning index. Nine TRs and eight MSs were identified and correlated, and Jaén's performance was compared to that of six other Spanish olive-growing provinces. Nine competitive advantages were identified, linked to five TRs (olive grove heritage landscape, tasting areas, exhibition centres, olive oil mills and greenways) and four MSs (olive mills, environmental education, diversification of supply and heritage promotion and innovation). This work proposes a useful tool to align resources and management, improve decision-making and move towards a more strategic governance in the olive oil tourism sector.

**Keywords:** quality function deployment (QFD); management specifications; olive oil tourism; rural development; Spain; tourism resources

The olive tree is the most ubiquitous and famous Mediterranean tree in cultural and symbolic terms (El-Kholy et al. 2012). Olive oil, its most valued product, is one of the fundamental components of the Mediterranean diet, which has been recognised as an Intangible Cultural Heritage of Humanity (UNESCO 2013). Hence, olive groves and olive oil production are seen as assets for the rural development of European territories, where their presence is part of the local memory and identity (Campón-Cerro et al. 2014; Nowak and Kaminska 2016). Thus, they can be considered territorial heritage (De Salvo and Manella 2022).

Olive oil tourism, a specific modality of food tourism, has been defined as a typology of special interest (Pulido-Fernández et al. 2021). Studies on the development of such tourism have highlighted its strong link with the local gastronomy (Dancausa-Millana et al. 2022) and its potential in the creation of differentiated tourism experiences.

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Spain is the world's largest producer of olive oil. In many rural areas of Andalusia, olive represents the predominant use of agricultural land, the economic base of many populations and even the key to their ecological balance (Moreno et al. 2011). Andalusia has a long experience with olive oil tourism (Millán et al. 2011; Moral-Cuadra et al. 2014; Agüera et al. 2017). Olive oil tourism has been analysed mainly from the point of view of demand and supply, but without neglecting rural development (Cuesta-Aguilar and Moya-García 2019) and its existence as a sustainable product (Millán et al. 2018).

On a sub-regional scale, the province of Jaén has the highest specialisation in olive tree production in the world because more than 90% of its agricultural surface is planted with olives, equivalent to almost 600 000 hectares (Rodríguez-Cohard et al. 2025). The antiquity, permanence and extension of this olive grove, associated with tangible and intangible heritage values, explains the interest in developing and positioning the olive tourism segment in the area (Sánchez-Martínez and Ortega-Ruiz 2016). Thus, the provincial government and private entities participate in Jaén's olive tourism sector through the Oleotour programme (oleotourjaen.es) (Cuesta-Aguilar and Moya-García 2019).

Other Spanish provinces are taking steps to achieve a similar objective, resulting in direct competition to attract the flow of visitors. For example, in the same Andalusian region, Córdoba, Sevilla, Granada and Málaga, which are consolidated tourist destinations in the city and coastal segments, are interested in developing their olive oil tourism. Other Spanish provinces, such as Ciudad Real and Tarragona, have shown the same interest. In all these cases, activities such as field itineraries, visits to interpretation centres or places linked to olive growing, olive oil tastings and food tours showcasing the region's gastronomy are offered (Parrilla-González et al. 2020).

Therefore, there is a need to analyse how territories are trying to organise their resources and find out how they can maximise their competitive advantages. This study aims to determine the competitive advantages of olive oil tourism in the province of Jaén, Spain, using strategic analysis tools that align tourism resources with effective management strategies. To this end, a questionnaire (Carballo-Cruz and Sánchez Martínez, 2025) was designed to identify the relationships between resources and management specifications and compare Jaén's performance with its competitors. The tourism resources ('what') and management specifications ('how') of olive oil tourism are correlated using the Quality Function Deployment (QFD) matrix.

***Theoretical framework.*** The endogenous development theory argues that local productive systems can compete in global markets, and proposes various strategies to overcome competitive difficulties in contexts where productive intensification, regional specialisation or the generation of economies of scale is unfeasible (Vázquez-Barquero and Rodríguez-Cohard 2018). One of the most common strategies is the reconversion towards tourism-related activities through the development of tourism infrastructure and services. However, many other economic initiatives can also contribute to the well-being and revitalisation of rural areas (OECD 2020).

The transformation of agricultural areas into tourist destinations is a recent phenomenon, particularly when linked to the recognition of their heritage value. International programs such as FAO's Globally Important Agricultural Heritage Systems and UNESCO's Cultural Landscapes play a key role in bridging the gap between productive rural landscapes and their exploitation for tourism purposes (Agnoleti and Santoro 2022). These initiatives have contributed to boosting the tourism attractiveness of these territories, increasing their visibility in national and international markets (Millán et al. 2018; Yotsumoto and Vafadari 2022).

Based on the experience of wine tourism, olive oil tourism emerged at the beginning of the 21$^{st}$ century as a new modality promoted by public institutions because of its potential to boost rural development (Campón-Cerro et al. 2014). The promotion of olive oil tourism is theoretically framed in a virtuous circle that articulates the production and commercialisation of local food, the conservation of cultural and natural heritage and the generation of employment, thus contributing to preventing population loss in rural areas (Sánchez-Martínez, 2023). This dynamic is crucial in traditional olive-growing territories facing substantial demographic challenges (García-Valdivia 2018).

Several studies in economics and tourism marketing have addressed olive oil tourism, focusing on aspects such as supply and demand, innovation processes, heritage valorisation, gastronomy and sustainability (López-Guzmán et al. 2016; Hernández-Mogollón et al. 2019; Pulido-Fernández et al. 2021). Tourism resources (TRs) linked to olive oil include tangible (e.g. traditional olive groves, olive mills, tasting spaces and rural landscapes) and intangible elements (e.g. gastronomy, cultural traditions and olive growing know-how) (Agüera et al. 2017). On the other hand, management specifications (MSs)

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include strategies such as supply diversification, environmental education, heritage promotion and intersectoral innovation (Pulido-Fernández et al. 2021).

Given that the literature on olive oil tourism is incipient, this study takes the advances in rural tourism, wine tourism and ecotourism – where the articulation between resources and management has been widely analysed as a basis for generating sustainable competitive advantages – as a reference (Keyim 2017). This approach allows transferring methodological and conceptual lessons to olive oil tourism contexts, such as Jaén.

The recent literature conceives innovation in rural tourism destinations as an ecosystem that integrates local actors and resources (Pato and Duque 2025). Thus, tourism management is articulated with the primary sector and the local community to create sustainable value based on rural assets (natural, cultural and agro-productive). Therefore, in addition to TRs, management elements, such as innovation strategies, sustainability planning and experience design, are essential to generate sustainable competitive advantages.

In this sense, participatory methodologies and service design tools have been used to improve the articulation between resources and visitor expectations to boost tourism innovation in rural destinations (Pato and Duque 2025). In particular, the Quality Function Deployment for Product Innovation (QFDPI) matrix would be useful to correlate resources with their management. This tool has been used to structure tourism innovation processes based on the correlation between customer needs and technical management specifications. Although it is commonly employed in product engineering, in tourism, it has shown potential to link tangible resources and management elements systematically. Its applicability has been demonstrated in the design of differentiated products in the hotel sector (Carballo-Cruz et al. 2023; Carballo-Cruz et al. 2024), suggesting its possible transfer to contexts such as olive oil tourism in Jaén, where the territorial offer should be aligned with the expectations of a specialised and demanding visitor profile.

Likewise, studies on rural tourism development show the importance of managing tangible and intangible resources to strengthen destination branding and community engagement (Bagnato et al. 2024). Management models that include environmental education, cross-sector partnerships and co-creation strategies have been effective in fostering resilience and innovation in similar rural destinations (Keyim 2017; Pato and Duque 2025).

In summary, the competitive advantages of olive oil tourism are determined by a combination of localised resources, heritage capital and effective management strategies. These should be assessed and integrated in a structured way, using tools such as the QFDPI or participatory planning frameworks, to ensure alignment between supply and visitor expectations, while maintaining environmental and cultural integrity.

## MATERIAL AND METHODS

The competitive advantages of olive oil tourism should be linked to the resources, factors or elements of tourism management that, integrated into the dynamics of the territory, present a superior performance, compared to competitors, or incorporate attributes that competitors lack. Hence, direct competition has been defined as those territories that share similar tourism resources and supply. Consistent with this criterion, a provincial scale of analysis was adopted, focusing on Jaén and the most relevant emerging destinations at the national level, identified through a specialised bibliographic review.

We employed a mixed approach methodology, with a predominance of quantitative techniques, supported by statistical analysis and data processing. The sample comprised 16 experts from four key areas of the sector: academic, business (linked to olive oil tourism), technical and political. These individuals were chosen via purposive sampling, based on experience and direct linkage with the object of study.

The research sequence (Figure 1) comprises three consecutive phases: (*i*) a diagnosis of the territory, (*ii*) the identification of TRs and MSs and (*iii*) a determination of competitive advantages. The expert questionnaire was employed in the second phase. This questionnaire allowed us to identify the TRs and MSs. Subsequently, the QFDPI matrix was used. This section describes the nine steps of the matrix, and Figure 1 illustrates its most important indicators. Based on the most relevant TRs and the key MSs (particularly those generating synergies), the competitive advantages of the territory were identified for their exploitation.

***Diagnosis of the territory and determination of tourism resources (TRs) and management specifications (MSs) for olive oil tourism.*** The diagnosis of the territory was conducted considering the TRs associated with olive oil tourism and the most representative elements of its management.

The QFDPI matrix was a fundamental tool at this stage. The matrix was combined with surveys and literature reviews (Figure 1), and was implemented based on a teamwork methodology.

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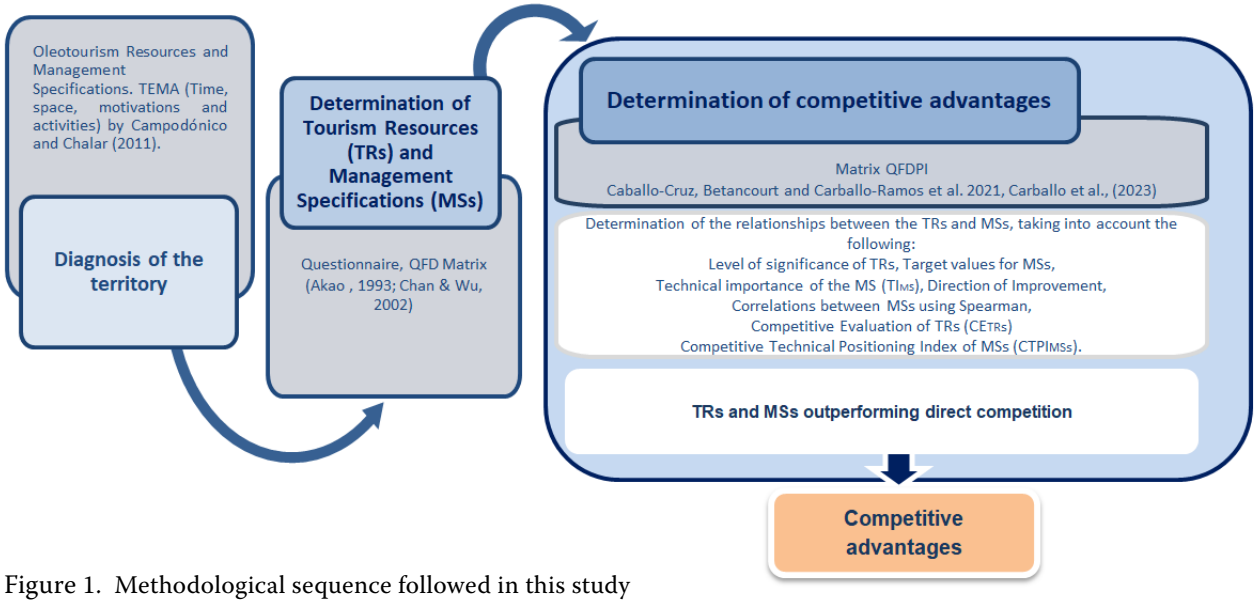


Figure 1. Methodological sequence followed in this study

Source: Authors' own elaboration.

The QFDPI comprises nine steps, whose fundamental purpose is to relate the TRs ('what') with the MSs ('how') that satisfy them in the most effective way possible. The steps are detailed below:

*i*) Identification of TRs and their level of importance: these are the TRs of the territory related to olive oil tourism; their importance is given by the weight assigned to each resource by the experts (i.e. the ratings issued by them).

*ii*) Determination of MSs for the effective management of TRs.

*iii*) Establishment of the objective values for the MSs: each MS is described according to the procedure manuals and regulations in force, although experts' criteria and the academic literature may also be considered.

*iv*) Identification of the relationships between the TRs and MSs: the relationships between the TRs and MSs are rated (3 for strong relationships, 2 for medium, 1 for weak and 0 for no relationship).

*v*) Evaluation of the technical importance ($TI_{TR,MS}$) of olive oil tourism: this value is obtained from the weighted sum of the relations between the TRs and the MSs ($R_{MS,TR}$), considering the level of importance of each TR as a weighting factor ($W_{TR}$). The result shows the differentiating attributes and possible competitive advantages:

$$TI_{TR,MS} = \sum R_{MS,TR} \times W_{TR} \quad (1)$$

*vi*) Identification of the direction of improvement: given by the TRs and MSs of minor technical importance; thus, the TR, MS and processes associated with these must be improved or substituted for a more effective management of oleotourism.

*vii*) Determination of correlations between the MSs: these are analysed in terms of strong and weak correlations for the management of the TRs, and are determined using Spearman's coefficient, which ranges from –1 to 1, where proximity to –1 indicates a negative relationship and proximity to 1 a positive relationship; a value of 0 indicates the absence of a relationship.

For analysis, the range is divided into four intervals of equal length, such that:

- The relationship is strong and positive if the ρ value is in the range of $0.5 < \rho \leq 1$.
- The relationship is weak and positive if the ρ value is in the range of $0 < \rho \leq 0.5$.
- The relationship is weak and negative if the ρ value is in the range of $-0.5 \leq \rho < 0$.
- The relationship is strong and negative if the ρ value is in the range of $-1 \leq \rho < -0.5$.

MSs with positive relationships boost olive oil tourism management and can constitute competitive advantages, depending on their performance relative to the direct competition. Those with negative relationships generally hinder olive oil tourism management and represent a direction for improvement.

*viii*) Competitive evaluation of the TRs ($CE_{TRs}$): the positioning of the TRs in the direct competition is assessed with respect to the territory being analysed. The TRs with a superior performance, compared to the direct competition, constitute competitive advantages

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for the territory in question; for this purpose, values higher (2), equal (1) or lower (0) than the latter are given. A $CE_{TR}$ value closer to 0 indicates greater competitiveness of the TRs of the territory under study.

$$CE_{TRs} = \frac{(BR_{TR} \times 2) + (IR_{TR} \times 1) + (WR_{TR} \times 0)}{C_{TR} \times 2} \quad (2)$$

where: *BR* – the number of higher ratings, compared to the territory under study; *IR* – the number of equal ratings; *WR* – the number of lower ratings; *C* – for the number of competitors.

*ix*) Determination of the competitive technical positioning index of the MSs ($ICTP_{MS}$): it is calculated considering the higher (2), equal (1) or lower (0) ratings received by all the TRs in each territory, and indicates the performance of the MSs; a value closer to 0 indicates a better positioning of the territory under study.

$$ICTP_{MS} = \frac{(BR_{MS} \times 2) + (IR_{MS} \times 1) + (WR_{MS} \times 0)}{C_{MS} \times 2} \quad (3)$$

This step takes into account not only the criteria of experts and the team, but also those of associations, companies, cooperatives, social networks and other related parties, either *in situ* or by a semantic search on the web.

*x*) Identification of TRs and MSs that constitute competitive advantages.

In this phase (Figure 1), competitive advantages in the territory being analysed are determined based on the results obtained in the QFDPI matrix, considering:

- The most important TRs in the territory.
- The most important MSs for the territory.
- MSs with positive correlations for generating competitive advantages.
- An identification of competitive advantages, based on the TRs and MSs. These advantages represent the points where the territory exhibits superior performance compared to the direct competition.

***The territory and resources associated with oil tourism.*** The major Mediterranean olive producers are developing initiatives to raise awareness of olive grove and olive oil culture, aiming to link this millenary activity and its most outstanding products with values such as health, rural authenticity, conservation of the traditional landscape, care for the environment, maintenance of biodiversity and the preservation of a rich heritage. The celebration, at the request of FAO, of the World Olive Day, contributes to this purpose, as does the growing offer of museums and olive tree routes. Spain has developed the most varied and extensive offer among those disseminated by the International Olive Oil Council (International Olive Oil Council, 2023).

Spain's prominence is linked to the fact that it is the world's leading producer of olive oil and table olives. Within Spain, Andalusia concentrates most of these resources at the regional level, and Jaén, at the provincial level (Cuesta-Aguilar and Moya-García 2019). Other Andalusian provinces with a notable olive-growing tradition, such as Córdoba, Granada, Sevilla and Málaga, also have important olive oil TRs, including archaeological sites, rural architecture from different historical periods and diverse olive oil extraction technology. The number of farmhouses and olive oil mills is as abundant as the toponymy, in which references to olive trees, wild olives, olives and oil are present throughout the territory (Hernández-Mogollón et al. 2021).

Another particularly relevant resource in the region is the urban historical-monumental heritage, represented in Córdoba, Granada and Sevilla, representing an additional attraction to olive oil tourism, as it offers the possibility of enjoying a more comprehensive experience of the territories (Moral-Cuadra et al. 2014; Millán et al. 2017). In the case of Málaga, this offer coexists with sun and beach products and other modalities of rural tourism. Moreover, all of them include a varied natural heritage.

Ciudad Real, in the autonomous community of Castilla-La Mancha, presents an offer that combines oil production with the literary richness of Cervantes' work, as a way of differentiation. The province has vast olive grove extensions and its TRs include the Don Quixote Route, the view of olive oil mills, the rural architecture of La Mancha and the olive oil museums (turismociudadreal.com).

The Territorio Sénia Millenary Olive Tree Agricultural System is one of the Global Important Agricultural Heritage Systems (GIAHS), and spans the provinces of Tarragona (Catalonia), Teruel (in Aragón) and Castellón (in the autonomous region of Valencia). The GIAHS programme identifies and safeguards an olive-growing landscape to promote its conservation and sustainability; thus, such a landscape is associated with the production of differentiated oil and is provided with hiking trails, local festivals, events and a Mediterranean gastronomy offer. Food and Agriculture Organization of the United Nations. (n.d)

The province of Jaén has made the most efforts to create an olive oil tourism destination in Spain. A substantial number of companies include olive oil tastings and

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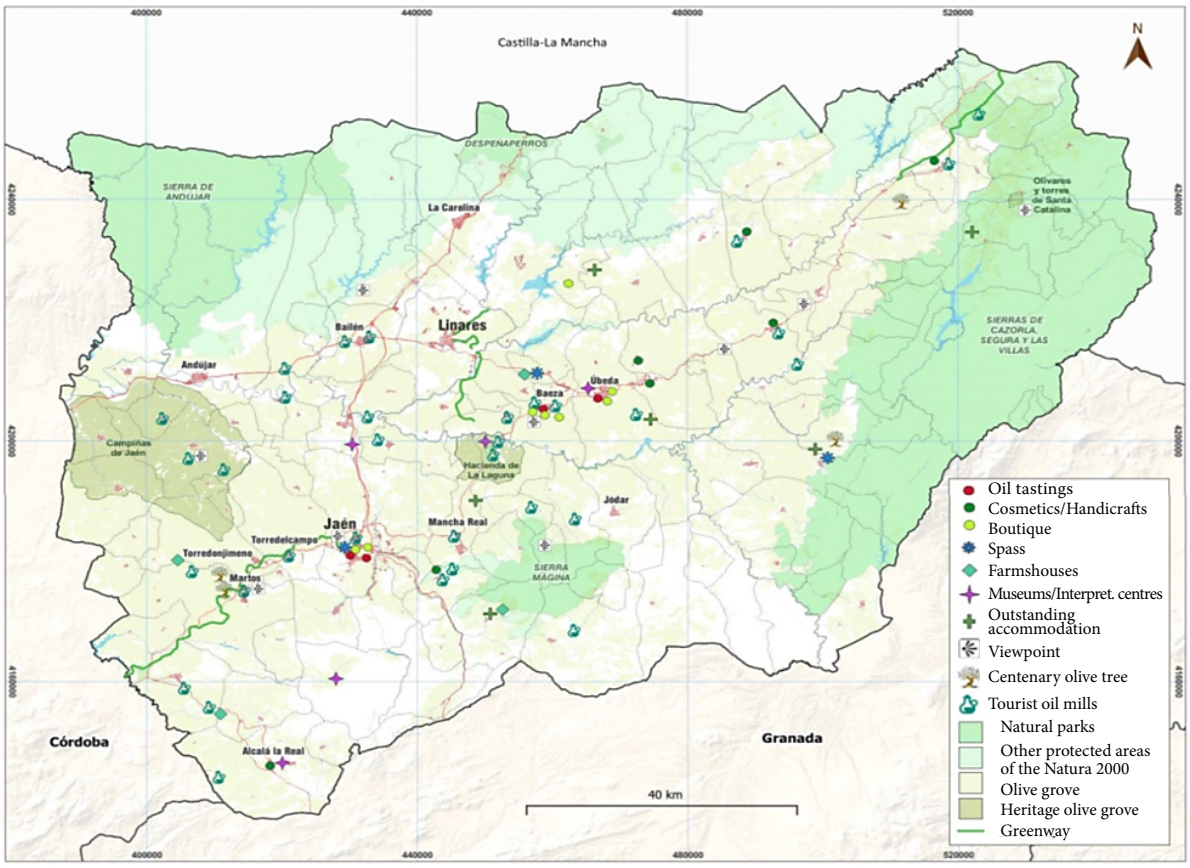


Figure 2. Olive oil tourism resources in the province of Jaén

Source: Authors' own elaboration, based on the Oletour Jaén project (jaenparaisointerior.es/es/oleotour/inicio)

samplings, have stores for the direct sale of olive oil, organise guided tours of their facilities and offer the possibility of participating in olive harvesting during the corresponding agricultural campaign. The offer of accommodation or the incorporation of tourist innovations is less developed, but also present (Parrilla-González et al. 2020; Sánchez-Martínez 2023).

Therefore, the territory exhibits an incipient and heterogeneous development of its olive oil tourism offer, and thus requires a more comprehensive approach. In this sense, the Oleotour Jaén project should be highlighted. This project began in 2013 and is articulated through a website (oleotourjaen.es), which provides information on the different TRs on offer (Cuesta-Aguilar and Moya-García 2019).

The Oleotour Jaén project is led by the Provincial Council and aims to bring together the different actors involved in olive oil tourism in the province. The project stands out for the quantity and quality of the resources identified, although they have not been converted into a formal and structured offer (tourist products) yet. Thus, the tourist experience is limited by the spontaneity and *a priori* organisation of the tours by the users.

Figure 2 shows the available resources and their relationship with the basic structure of the territory (larger urban centres and major land communication routes), the protected areas and the surface area occupied by olive groves. Visitors have many options, including olive mills, viewpoints, centenary olive trees, unique accommodations, routes and activities related to olive oil.

## RESULTS

A focus group conducted with experts revealed that they consider the improvement in the perception and visualisation of the olive grove, specialised and group visits and online reservations to be important elements. However, activities for children and the purchase of handicrafts and symbolic products are considered less important, which could represent a barrier to the revitalisation of the olive grove from a different perspective (Figure 3).

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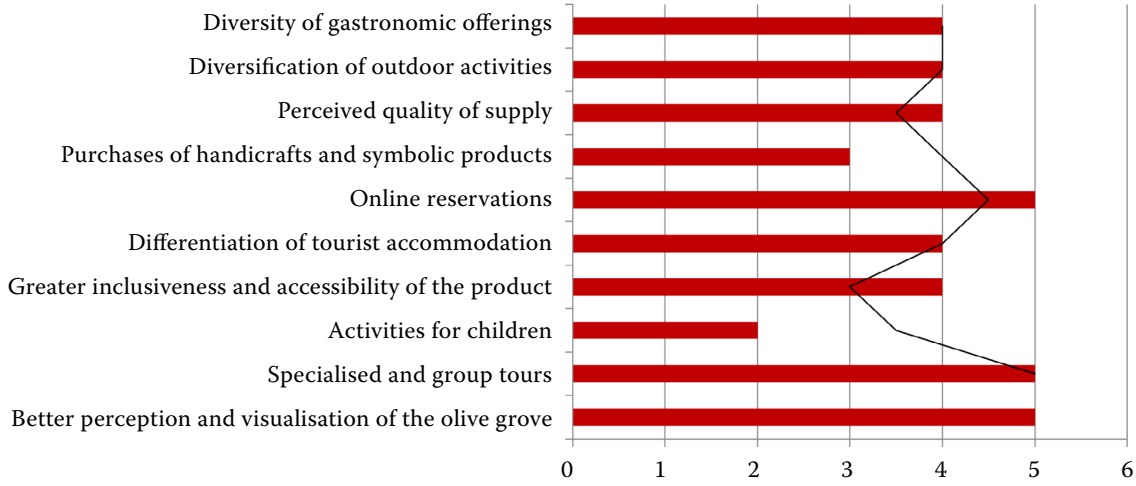


Figure 3. Priority for improvement and development of Oleotour Jaén's tourism attributes

Source: Authors' own elaboration

**Determination of TRs and MSs in olive oil tourism in Jaén**

Considering the criteria of the experts consulted in this research, 10 TRs for olive oil tourism in Jaén were identified (Table 1). By applying the QFDPI matrix, their level of importance in olive oil tourism was determined on a case-by-case basis. The weight given to the TRs varied and was influenced by their relevance in Oletour Jaén, with high and very high importance evaluations (4 and 5) for 50% of the resources considered:

- viewpoints and centennial olive trees
- olive oil mills
- olive oil-tasting spaces
- greenways
- olive grove of landscape and/or heritage interest

The team of experts also identified eight MSs ('how') for the management of the TRs (Table 1). Subsequently, their objective values were determined (i.e. the MSs were translated into management standards and requirements, Table 2).

***Evaluation of the technical importance of the management specifications ($TI_{MS}$) according to the TRs, and identification of the direction of improvement.*** The technical importance of the management specifications ($TI_{MS}$) was determined based on the relationship matrix in Table 1 (Figure 3). The sum weighted according to the importance of the TRs revealed that the TRs of greatest technical importance are olive mills, olive groves of landscape and/or heritage interest, olive oil-tasting areas, and viewpoints and centennial olive trees.

On the other hand, the most technically important MSs are the diversification of supply, specialised personnel, heritage promotion and environmental education. Although the difference between the values of the rest of MSs is not significant, improvement should be directed towards specialised gastronomic services.

***Estimating the correlations between the MSs. Which of them are dynamic or constrain each other for the management of the TRs?*** In this step, the relationships between the MSs and their level of intensity were determined using Spearman's correlation coefficient, according to the intervals defined in Step vii) of the QFDPI (Materials and Methods section). This process allowed us to identify which MSs enhance each other in the management of TRs, which are limited, and which are independent, as is the case with supply diversification (Table 3).

The following MSs showed strong correlations:

- Theming (I) with specialised personnel (IV).
- Innovation (II) with specialised gastronomic services (V).
- Heritage promotion (III) with communication and local participation (VII), as well as environmental education (VIII).
- Communication and local participation (VII) with environmental education (VIII).

Although these correlations do not indicate direct causality, they provide valuable clues as to how the different MSs are related to each other. This understanding can help in strategic decision-making to improve TR management and generate competitive advantages for those involved in olive oil tourism in Jaén. The correlation between theming (I) and specialised personnel (IV) suggests that the thematization of the olive oil tourism

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Table 1. Relationship matrix between tourism resources (TRs) and management specifications (MSs)

| | | | Management specifications | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Importance | Theming | Innovation | Heritage promotion | Specialised personnel | Specialised gastronomic services | Diversification of supply | Communication and local participation | Environmental education | |
| Tourism resources (TRs) | Viewpoints and centennial olive trees | 4 | 3 | 1 | 3 | 3 | 1 | 3 | 3 | 3 | 80 |
| | Olive oil mills | 5 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 110 |
| | Olive oil tasting spaces | 5 | 1 | 3 | 1 | 3 | 3 | 3 | 1 | 1 | 80 |
| | Olive oil interpretations centres | 3 | 2 | 2 | 1 | 3 | 3 | 3 | 1 | 1 | 48 |
| | Spas | 3 | 2 | 2 | 1 | 3 | 1 | 3 | 1 | 1 | 42 |
| | Farmhouses | 2 | 0 | 1 | 3 | 2 | 3 | 3 | 2 | 3 | 34 |
| | Greenways | 4 | 0 | 1 | 3 | 2 | 1 | 3 | 3 | 3 | 64 |
| | Olive grove of landscape and/or heritage interest | 5 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 105 |
| | Cosmetics and handicrafts | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 1 | 36 |
| | Themed accommodations | 1 | 0 | 3 | 1 | 2 | 0 | 3 | 2 | 1 | 12 |
| | Technical significance | | 65 | 69 | 76 | 95 | 62 | 102 | 68 | 74 | |

Increased technical importance  Direction of improvement

Source: Authors' own elaboration

experience should focus on investing in the development of specialised personnel. Such personnel should be trained to offer detailed information and thematic experiences that improve the overall quality of the visit.

The same happens with the correlation between innovation (II) and specialised gastronomic services, suggesting that innovations in the tourism offer should aim to improve the quality and specialisation of gastronomic services, which may include new culinary techniques, dish presentations or novel products related to olive oil.

Likewise, the strong correlation of communication and local participation (VII), heritage promotion (III) and environmental education (VIII) suggests that communication and local participation strategies can be integrated with archaeological, architectural and landscape heritage promotion initiatives, and with environmental education programmes or initiatives. In other words, involving the local community can make the tourism experience more enriching and sustainable, and may be the key to fostering environmental awareness among visitors.

However, negative correlations were observed between some MSs (Table 3, Figure 3), indicating inverse relationships between these. The implications will depend on the specific context of olive oil tourism and management objectives, which may require a strategic and balanced approach to optimise visitor experience and tourism resource management.

Specifically, innovation (II) shows negative correlations with heritage promotion (III), communication and local participation (VII), and environmental education (VIII). Therefore, considering the limited resources, it may be advisable to choose which strategies to prioritise. Note that a negative correlation does not necessarily imply that the MSs are mutually exclusive; however, they suggest the need to explore strategies for integrating them to create a more complete tourism experience.

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Table 2. Target values of management specifications (MSs) for new or improved products

| MSs | Objective values |
|---|---|
| Theming | Creation and development of thematic tourism experiences focused on olive oil and its surrounding culture. These can include immersive reality, 3D tours and theatrical experiences in tours, or products such as oil routes, specialised tastings, hands-on activities and themed accommodations. |
| Innovation | Innovation involves the introduction of new ideas, approaches, services or technologies that enhance the tourism experience related to olive oil production. Innovation can be manifested through interactive technologies, digital experiences, original gastronomy, sustainable innovation, loyalty and membership programs, as well as education and training. |
| Heritage promotion | The promotion of archaeological, architectural and landscape heritage in the context of olive oil tourism implies highlighting and valuing the cultural and historical elements associated with olive oil production. Heritage promotion can be expressed through integrated thematic routes, interpretation centres, integrated cultural events, restoration and conservation and online promotion. |
| Specialised personnel | Personnel with specific knowledge and relevant skills to facilitate tourism experiences related to olive oil production, such as olive oil tourism guides, experienced producers, specialists from local tourism offices, oil-tasting experts, sustainable agriculture specialists, environmental educators, chefs specialised in cooking with olive oil, coordinators of participatory activities, communication and marketing specialists and coordinators of thematic events. |
| Specialised gastronomic services | Services aimed at creating innovative gastronomic experiences that highlight olive oil as the main ingredient. These could include themed dinners, oil-pairing tastings and unique culinary events. |
| Diversification of supply | Expansion and enrichment of tourism experiences related to olive oil production. Diversification can be achieved by incorporating various activities and services that appeal to different types of tourists and satisfy diverse interests, such as tastings and wine pairings, active tourism, special events, immersive experiences (e.g. boutique hotels with a design inspired by olive growing), educational programs and collaboration with tour operators specialised in olive oil tourism to offer complete packages. Additionally, it includes the promotion of local markets. |
| Communication and local participation | Strategies and practices that involve the local community in the development, promotion and sustainability of tourism experiences related to olive oil production. These involve active community collaboration in decision-making, project implementation and the promotion of olive oil tourism in the region, and may include participation in planning, community benefits, heritage preservation, local training and employment and community education programs. |
| Environmental education | Implementation of environmental sustainability principles and practices in tourism experiences related to olive oil production. It aims to raise awareness among visitors about the importance of preserving the environment, biodiversity and natural resources, while promoting a form of olive oil tourism that minimises its negative environmental impact. Furthermore, promoting educational programs for school groups or academic institutions, including guided tours, educational talks and interactive activities. |

Source: Authors' own elaboration, based on experts' criteria and considering sources such as: *aemo.es; aceitesdeolivadeespana.com/nuestra-actividad, dipujaen.es/conoce-diputacion/areas-organismos-empresas/areaH/olivar_y_aceite/jaen_seleccion.html* and Hall and Williams (2019)

The same is true for communication and local participation (VII), specialised gastronomic services (V) and diversification of the offer (VI), which show negative correlations. Thus, integrating them to generate synergies is crucial. Some strategies may include programmes that encourage and involve the community in special gastronomic events or in the creation of new tourism offerings.

***Competitive evaluation of TRs in direct competition (CE$_{TRs}$). Global competitive positioning index of the TRs relative to the direct competition (GCP$_{TRs}$).*** When analysing the positioning of each TR

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Table 3. Correlations between the management specifications, using Spearman's coefficient

| | II | III | IV | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|
| I | 0.10 | 0.19 | 0.88 | 0.10 | 0 | –0.02 | 0.08 |
| II | | –0.55 | 0.28 | 0.53 | 0 | –0.47 | –0.52 |
| III | – | | –0.16 | –0.07 | 0 | 0.78 | 0.95 |
| IV | – | – | | 0.28 | 0 | –0.34 | –0.22 |
| V | – | – | – | | 0 | –0.58 | –0.19 |
| VI | – | – | – | – | | –0.54 | 0 |
| VII | – | – | – | – | – | | 0.84 |

I – theming; II – innovation; III – promotion of heritage; IV – specialised personnel; V – specialised gastronomic services; VI – diversification of the offer; VII – communication and local participation; VIII – environmental education

Source: Authors' own elaboration

in the competing territories (Figure 4), the values closest to zero (i.e. those corresponding to the TRs with a higher performance in Jaén than in the competitors) are olive oil interpretation centres, olive oil mills, olive oil-tasting spaces, greenways and olive groves of landscape and/or heritage interest (Figure 4).

Similar values are obtained when comparing the global technical competitive positioning indexes by territory. A value close to 0 indicates worse positioning than Jaén (i.e. Jaén's superiority), a value close to 1 means that the regions are equally positioned, and one close to 2 indicates better positioning of the competitor than the province in question.

As shown in Figure 5, the TRs are better positioned in Tarragona than in Jaén, with the same or similar performance in Córdoba, Sevilla, Granada, and with a tendency to be worse positioned in Málaga and Ciudad Real.

***Competitive evaluation of MSs in the direct competition and global competitive technical positioning.*** The best-positioned MSs in Jaén are environmental education, diversification of supply, promotion of heritage, and innovation (Figure 6). On the other hand, those where the direct competition shows superior performance are communication, local participation, specialised gastronomic services and specialised personnel. Although Jaén has great potential for developing these MSs, they are not fully exploited in its olive oil tourism.

The competitors show a similar overall behaviour, based on the performance and positioning of the MSs (Figure 6b); however, there is greater competitive

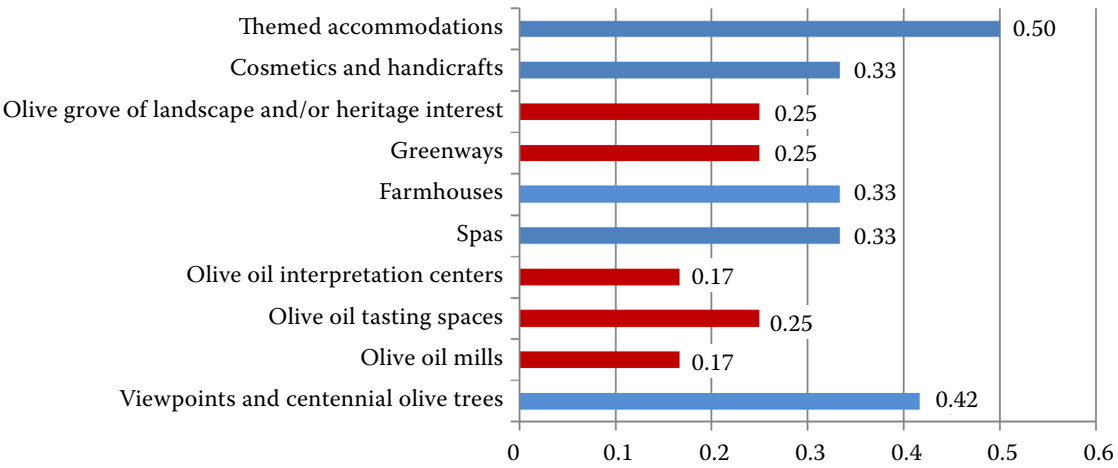


Figure 4. Tourism resources with a better positioning in Jaén than in the competing territories

Source: Authors' own elaboration

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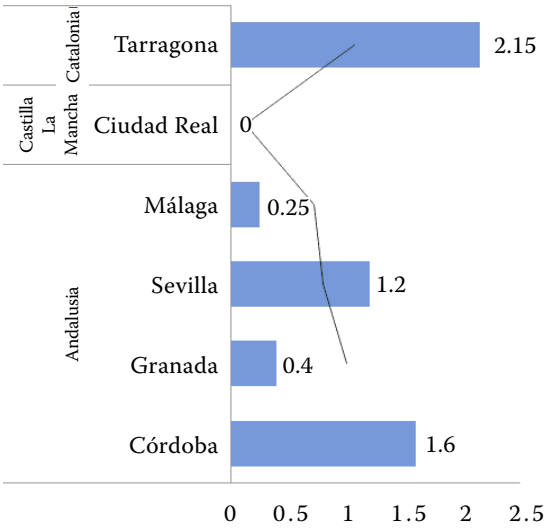


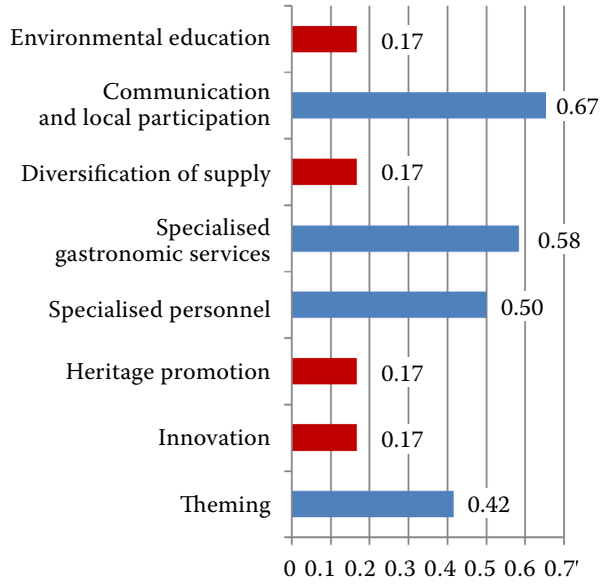

Figure 5. Global competitive positioning index of the tourism resources (*GCPTRs*) in the competing territories

Source: Authors' own elaboration

proximity with Córdoba and Granada and less with Sevilla and Ciudad Real.

***Identification of TRs that constitute competitive advantages.*** Table 4 shows the TRs and MSs considered for the selection of competitive advantages, as well as the selected competitive advantages for Jaén, based on its superior performance compared to the direct competition.

(A)




(B)

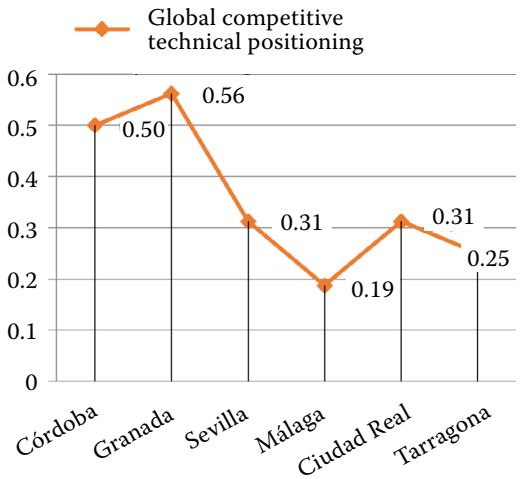



Figure 6. (A) Competitive evaluation of the management specifications (MSs) and (B) their positioning in the competing territories

Source: Authors' own elaboration

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Table 4. Selection of competitive advantages in Jaén

| Candidates for competitive advantages | | Competitive advantages |
|---|---|---|
| TRs and MSs with major technical significance | MSs with positive correlations | TRs and MSs with superior performance, compared to the direct competition |
| olive oil mills (TR)<br>olive groves of landscape and/or heritage interest (TR)<br>olive oil-tasting spaces (TR)<br>viewpoints and centennial olive trees (TR)<br>supply diversification (MS)<br>specialised personnel (MS)<br>heritage promotion (MS)<br>environmental education (MS) | theming<br>specialised personnel<br>innovation in specialised gastronomic services<br>heritage promotion<br>communication and local participation<br>environmental education | olive oil mills (TR)<br>olive groves of landscape and/or heritage interest (TR)<br>olive oil-tasting spaces (TR)<br>olive oil interpretation centres (TR)<br>greenways (TR)<br>environmental education (MS)<br>supply diversification (MS)<br>heritage promotion (MS)<br>innovation (MS) |

MSs – management specifications; TRs – tourism resources
Source: Authors' own elaboration

## DISCUSSION

The literature review shows that economic diversification in agricultural territories, particularly those linked to olive monoculture, is undergoing a shift towards more integrated strategies that incorporate tourism to promote development. This shift responds to the need to counteract the vulnerability of rural economies and to the search for differentiation in the tourism offer by promoting local resources (Pulido-Fernández et al. 2021). However, the literature also highlights how these processes have not yet managed to break away from the dominant agro-industrial paradigm, which still has a profound territorial impact (Rodríguez-Cohard et al. 2025). Hence, tourism, and particularly olive oil tourism, appears as a promising way to transform the olive grove landscape. Nevertheless, its insertion in territorial planning is still incipient.

One of the main findings of this study is the dispersion and partiality of academic approaches to olive oil tourism. Most studies focus on product marketing or on analysing tourism demand, neglecting the structural links with the economic environment, local governance and the dynamics of heritage valorisation. This gap indicates the need for more integrative analytical frameworks that connect the logics of the rural territory with economic and social models. For example, multiple opportunities for the consolidation of olive oil tourism in Jaén have been identified, but have not been fully exploited. Although the Oleotour Jaén project is an important starting point, it has not been configured as a tourism product, limiting its capacity to position itself in relation to competing destinations. This weakness is accentuated in specific segments, such as families with children, whose scant attention in the current offer could be a key area for improvement. Outdoor activities with recreational and educational components could diversify demand and improve the destination's competitiveness.

Likewise, artisanal and local products, especially those made from olive wood and oils with a designation of origin, have been overlooked. This situation suggests a lack of effective promotion strategies, representing a critical gap between the territory's potential and its commercial valorisation. Overcoming these limitations requires a more robust approach to territorial marketing and the valorisation of cultural identity to turn these elements into competitive advantages.

The application of the QFDPI matrix revealed its usefulness not only as a diagnostic tool but also as a strategic framework for aligning TRs based on olive production with the most appropriate MSs. This correlation between the ‚what' (TRs) and the ‚how' (MSs) allows the identification of the competitive strengths of a territory and, especially, to direct public and private efforts towards areas of improvement. Unlike more descriptive methods, this approach provides a systemic view that facilitates strategic decision-making in rural environments with strong agricultural vocation, such as Jaén.

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Beyond the empirical results, this study offers an operational model that can be extrapolated for designing tourism policies based on specific competitive advantages. The identification of nine key advantages linked to territorial resources, including olive landscapes of heritage value, tasting areas, interpretation centres and greenways, as well as MSs, such as olive mills, environmental education, diversification of supply and promotion of heritage and innovation, shows that the true potential of olive oil tourism lies not only in the attractions, but also in their integration within coherent territorial planning and management systems. Hence, the QFDPI matrix is a useful tool for aligning TRs and MSs and also facilitates more informed decision-making to achieve sustainable tourism, especially in territories with economies focused on agriculture, such as Jaén.

On the other hand, the institutional and collaborative initiatives that are being articulated around olive oil tourism in Jaén reflect a paradigm shift in rural development. The combination of supranational policies (such as the Next Generation funds), heritage recognition [such as the nomination of the olive landscape as a Cultural Landscape for the World Heritage List, Paisajes del Olivar (2024)] and territorial governance structures (such as the Olive Oil and Olive Culture Board) demonstrates a growing interest in integrating experiential tourism into a diversified economic development strategy. This approach revalues olive as a product and establishes synergies between traditionally disconnected sectors, opening new avenues for a more resilient and sustainable rural development.

Although this study uses an innovative methodological approach by applying the QFDPI matrix to olive oil tourism, its scope has certain limitations. Empirical validation is limited to Jaén, although it compares QFDPI indicators with other Spanish provinces. Thus, the results cannot be generalised to other territories without contextual adjustments. Likewise, the lack of an ethnographic or participatory approach might limit our understanding of the social and cultural dynamics underlying olive oil tourism practices. Therefore, this research invites us to rethink the articulation between rural tourism and strategic management from more integrative approaches that incorporate the technical analysis of resources and capacities and the socio-political dimensions of territorial governance.

## CONCLUSION

This study highlights the importance of olive oil tourism as a strategic axis for the diversification of economies in agricultural areas, such as Jaén, especially when these initiatives are developed within the framework of comprehensive territorial planning. From a methodological perspective, the quality function deployment (QFD) matrix is an innovative tool for correlating territorial resources with the most appropriate management strategies, based on the generation of competitive advantages. However, the results reveal shortcomings in product structuring, promotional strategies and academic approaches. Therefore, this study highlights the need for more inclusive and participatory frameworks. Although this work focuses on Jaén and its direct competitors in olive oil tourism, the proposed model encourages rethinking rural development by combining heritage enhancement, territorial governance and sustainable tourism planning.

## REFERENCES

Agnoletti M., Santoro A. (2022): Agricultural heritage systems and agrobiodiversity. Biodiversity and Conservation, 31: 2231–2241.

Agüera F.O., Cuadra S.M., López-Guzmán T., Morales P.C. (2017): Study of the existing demand around olive oil tourism. The case of Andalusia. Cuadernos de Turismo, 39: 677–680.

Akao Y. (1993): Quality function deployment: integrating customer requirements into product design. Madrid: TGP-HOSHIN, 1993.

Bagnato G., Normando M., Escobar S.D. (2024): Sustainable innovation in wine tourism. In: Buhalis D., Brandão F., Mangion M.L., Efthymiou L. (eds): Proccedings of the Mediterranean Tourism Knowledge Exchange and Policy Forum ARTS – Amidst Rapid Transformational Shifts. Malta, July 25–27, 2024: 183–188.

Campón-Cerro A.M., Di-Clemente E., Hernández-Mogollón J.M., de Salvo P., Calzati V. (2014): Olive oil tourism in southern Europe: Proposals for tourism development of olive grove rural areas. Revista Turismo & Desenvolvimento, 4: 63–73.

Carballo-Cruz E., Betancourt-García M.E., Carballo-Ramos E.E. (2021): Innovation of touristic products in resort hotels, a procedure based on complex adaptive systems. Retos de la Dirección, 15: 1–24.

Carballo-Cruz E., Sánchez-Martínez J.D. (2025): Questionnaire of the relationship between tourism resources and olive oil tourism management specifications. Open Science Framework. https://osf.io/acwh3/files/osfstorage/68261d6c76c61a41fceadf96?view_only=f1bf7c586bba424e9633cea357e69c4a

Carballo-Cruz E., Toledo R.Y., Carballo-Ramos E., Betancourt García M.E. (2023): Touristic product innovation through complex adaptive systems for the generation of competitive advantages in Cuba. Investigaciones Turísticas, 26: 28–55.

https://doi.org/10.17221/344/2024-AGRICECON

Carballo Cruz E.; Yera R.; Maroto-Martos J.C. & Pinos-Navarrete A. (2024): Towards touristic innovation in the hotel industry: Diamond Club product in the northern keys of Cuba. PASOS. Revista de Turismo y Patrimonio Cultural. 22(4), 737-753. https://doi.org/10.25145/j.pasos.2024.22.048

Chan L.-K., & Wu M.-L. (2002): Quality function deployment: A literature review. European Journal of Operational Research, 143(3), 463–497. https://doi.org/10.1016/S0377-2217(02)00178-9

Cuesta-Aguilar M.J., Moya-García E. (2019): Oleotourism and rural development: Advances and challenges in the case of the province of Jaén (Andalusia, Spain). (Oleoturismo y desarrollo rural: avances y retos en el caso de la provincia de Jaén (Andalucía, España)). Revista Turismo & Desenvolvimento, 32: 255–264. (in Spanish)

Dancausa-Millana G., Millán-Vázquez de la Torre M.G., Huete-Alcocer N. (2022): Olive oil as a gourmet ingredient in contemporary cuisine. A gastronomic tourism proposal. International Journal of Gastronomy and Food Science, 29: 100548.

de Salvo P., Manella G. (2022): The future of astronomic tourism: The rise of foodscape and the enhancement of olive oil. In: Krivokapić N., Jovanović O. (eds): Slow and Fast Tourism: Travellers, Local Communities, Territories, Experiences. Kotor, Oct 4–5, 2019: 349–362.

El-Kholy M., Avanzato D., Caballero J.M., Chartzoulakis K., Vita Serman F., Perry E. (2012): Following Olive Footprints (Olea europea L.). – Cultivation and Culture, Folklore and History, Traditions and Uses.Scripta Horticulturae 13, 1-446.

Food and Agriculture Organization of the United Nations. (n.d.). The Agricultural System Ancient Olive Trees Territorio Sénia, Spain. FAO. Available at: https://www.fao.org/giahs/giahs-around-the-world/spain-senia-ancient-olive-trees/en (accessed Feb 09, 2026)

García-Valdivia A. (2018): The Challenge of Rural Depopulation: Facing the Scenario of Demographic Deserts in the EU. Forbes. Available at https://www.forbes.com/sites/anagarciavaldivia/2018/12/22/the-challenge-of-rural-depopulation-facing-the-scenario-of-demographic-deserts-in-the-eu/?sh=f51b44d12954 (accessed Sept 10, 2024).

Hall C.M., Williams A.M. (2019): Tourism and Innovation. 2nd Ed. London, Routledge: 496.

Hernández-Mogollón J.M., Di-Clemente E., Folgado-Fernández J.A., Campón-Cerro A.M. (2019): Olive oil tourism: State of the art. Tourism and Hospitality Management, 25: 179–207.

Hernández-Mogollón J.M., Di-Clemente E., Campón-Cerro A.M., Folgado-Fernández J.A. (2021): Olive oil tourism in the Euro-Mediterranean area. International Journal of Euro-Mediterranean Studies, 14: 85–101.

International Olive Oil Council (2023): Olive Museums & Routes. Madrid, International Olive Oil Council. Available at https://www.internationaloliveoil.org/olive-world/olive-museums-routes/ (accessed Feb 09, 2026)

Keyim P. (2017): Inbound tourism development at the Western border region of China. East Asia, 34: 79–85.

López-Guzmán T., Cañero-Morales P.M., Moral-Cuadra S., Orgaz-Agüera F. (2016): An exploratory study of olive tourism consumers. Tourism and Hospitality Management, 22: 57–68.

Millán M., Agudo E.M., Morales E. (2011): Analysis of supply and demand of oleotourism in southern Spain: A case study. Cuadernos de Desarrollo Rural, 8: 181–202.

Millán M.G., Arjona-Fuentes J.M., Amador-Hidalgo L. (2017): Olive oil tourism: Promoting rural development in Andalusia (Spain). Tourism Management Perspectives, 21: 100–108.

Millán M.G., Pablo-Romero M.D.P., Sánchez-Rivas J. (2018): Oleotourism as a sustainable product: An analysis of its demand in the south of Spain (Andalusia). Sustainability, 10: 101.

Moral-Cuadra S., Cañero-Morales P., Orgaz-Agüera F., López-Guzmán T. (2014): Una aproximación al oleoturismo en Andalucía, España. International Journal of World of Tourism, 1: 29–40. (in Spanish)

Moreno V.M., Rubio J.M.Q., Guerra I.R. (2011): The potential for olive oil tourism as an economic diversification for the cooperative agricultural sector: The Spanish case. (Potencial del oleoturismo como diversificación económica del sector cooperativo agrario: el caso español). Revista de Ciencias Sociales, 17: 533–541. (in Spanish)

Nowak A., Kaminska A. (2016): Agricultural competitiveness: The case of the European Union countries. Agric. Econ. – Czech, 62: 507–516.

OECD (2020): Rural Well-being: Geography of Opportunities. Policy Highlights. Available at: https://www.oecd.org/regional/rural-development/PH-Rural-Well-being-ES.pdf (accessed Sept 10, 2024).

Paisajes del Olivar (2024): Candidatura. Expediente 2024. Paisajes del Olivar de Andalucía. Available at paisajesdelolivar.es/candidatura

Parrilla-González J.A., Murgado-Armenteros E.M., Torres-Ruiz F.J. (2020): Characterization of olive oil tourism as a type of special interest tourism: An analysis from the tourist experience perspective. Sustainability, 12: 6008.

Pato M.L., Duque A.S. (2025): mapping innovation and sustainability in rural tourism: A bibliometric approach. Sustainability, 17: 2574.

Pulido-Fernández J.I., Casado-Montilla J., Carrillo-Hidalgo I. (2021): Análisis del comportamiento de la demanda de oleoturismo desde la perspectiva de la oferta. Investigaciones Turísticas, 21: 67–85. (in Spanish)

Rodríguez-Cohard J.C., Lombardo P.B., Sánchez-Martínez J.D., Garrido-Almonacid A. (2025): Territorial impacts of the monoculture-based agri-food industry: Comparative analyses on two continents, Applied Geography, 175: 103489.

https://doi.org/10.17221/344/2024-AGRICECON

Sánchez-Martínez J.D. (2023): Olive grove landscapes in Andalusia: in search of synergies between agrarian cultural heritage and rural development. European Countryside, 15: 422–441.

Sánchez-Martínez J.D., Ortega-Ruiz A. (2016): The olive monoculture of Jaén: Historical conformation, heritage values and cultural-tourist projection. Cuadernos de Turismo, 37: 535–538.

UNESCO (2013): Mediterranean Diet. Paris, UNESCO. Available at https://ich.unesco.org/en/RL/mediterranean-diet-00884 (accessed June 03, 2025).

Vázquez-Barquero A., Rodríguez-Cohard J.C. (2018): Local development in a global world: Challenges and opportunities. Regional Science Policy & Practice, 11: 885–897.

Yotsumoto Y. Vafadari K. (2021): Comparing cultural world heritage sites and globally important agricultural heritage systems and their potential for tourism. Journal of Heritage Tourism, 16: 43–61.

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