

# Sustainable Tourism as a Driving Factor for Competitiveness in the Olive Sector

Ana Cristina Silvério <sup>[0000-0002-9228-0622]</sup>

UNIAG, Instituto Politécnico de Bragança  
Bragança, Portugal  
ana.silverio@ipb.pt

Jéssica Ferreira <sup>[0000-0002-4141-6702]</sup>

UNIAG, Instituto Politécnico de Bragança  
Bragança, Portugal  
jessica.ferreira@ipb.pt

Márcia F. Vaz <sup>[0000-0002-0587-6453]</sup>

UNIAG, Instituto Politécnico de Bragança  
Bragança, Portugal  
marciafvaz@ipb.pt

Paula Odete Fernandes <sup>[0000-0001-8714-4901]</sup>

UNIAG, Instituto Politécnico de Bragança  
Bragança, Portugal  
pof@ipb.pt

**Abstract** — Tourism is facing serious difficulties worldwide due to the global pandemic COVID-19, translating considerably into an industry effort to compete in the marketplace. In effect, sustainable tourism is considered to have a symbiotic relationship with competitiveness that will allow organisations to make a difference. This means that the sustainability factors are positively related to the competitiveness indicators. In this context, as the oliviculture sector faces challenges in a changing market in terms of ecological, demographic, and consumption practices changes, it is considered that sustainable tourism will enable the sector to make a difference. For, the environmental and social changes of the stakeholders enhance the promotion of sustainability to meet their needs, which in turn increases the sector's competitive advantage. In this respect, the present study was based on a literature review consolidated in a bibliometric analysis to analyse sustainable tourism as a driver of competitiveness in the oliviculture industry. For this purpose, the Scopus database was used, in which 157 full articles published until September 2021 were obtained. Based on the results, using the Bibliometrix R, it was found that research in this field has emerged in the last 20 years and focuses particularly on the terms “competitiveness”, “ecotourism” and “tourism development”. In addition, the countries with the highest scientific production and citations, the main sources of publication in this field of research, the documents with the most citations as well as the co-citations between authors were analysed. Through bibliometric analysis, it is possible to provide researchers, policy-makers and managers with a current view of the undoubted role that sustainable tourism plays in the competitiveness of the olive sector. Considering the trends, it is therefore expected to contribute bases for future strategies aimed at overcoming obstacles, overcoming challenges, and seizing opportunities for a more competitive sector.

**Keywords** - tourism, sustainable tourism, competitiveness, oliviculture, bibliometric analysis.

## I. INTRODUCTION

In the last years, oliviculture has been presenting itself as a preponderant factor for the economic evolution of both the sector and the country [1]. In some areas, it can even be said that oliviculture is the main source of livelihood and that tourism represents a path of diversification for companies in the sector [2]. However, the tourism industry is going through a very

challenging time, and for this reason there is a growing concern to compete in the market. Nevertheless, tourism is recognised as an economic sector with high potential and as a driver of sustainable development [3]. At this juncture, sustainable tourism has become an important strategic objective, worldwide, for the market's survival [4]. Because it is shown to be a way to avoid environmental and economic damage and to take into account multiple criteria such as competitiveness.

Competitiveness refers, in particular, to the ability to create value-added products that sustain the sector's position in the market and satisfy consumer needs without compromising the ability of future generations [5]. In this scenario, the literature recognises that sustainable tourism can be a differentiator in positioning the sector in the market, especially in a highly competitive market. The study of [6] on determinants of competitiveness has given sustainable tourism a crucial role in the sector's market performance. Indeed, in practice, sustainable tourism is positively associated with competitiveness [7]. Sustainable tourism remains the only option for developing economies to increase competitiveness [8].

Sustainable Tourism has been permuted in both individuals' consciousness and government policies as a vastly sought-after alternative and sustainable strategy that translates into a competitive advantage [9, 10]. Sustainable tourism allows creating market differentiation [4]. According to the theory, sustainable tourism alludes to sustainability in the field of tourism and its resulting social, environmental, cultural and economic effects [5]. Also, the term "sustainable tourism prompts a conscious interest by tourists in environmental issues and simultaneously implies greater demands by target markets on their products, which infers an increase in competitiveness [9]. It should be noted that, almost a decade ago, sustainable tourism was a must for both competitiveness and responding to growing social demands [11]. In other terms, the sector reigns in the emerging market through sustainable tourism product differentiation [12, 14]. Because of this, the authors state that the environmental performance of the olive sector is a differentiating element for competitiveness [15]. In this follow-up, currently, the competitiveness of the olive growing sector depends substantially on sustainable tourism [13, 16]. The main element driving the development of the oil industry essentially

relates to sustainability through a natural resource offering aligned with the needs of the environment and an immersive and innovative experience of this niche market [17]. In addition, the olive oil sector asserts itself as a practice with the ability to respond to consumers' environmental needs, which becomes a valuable opportunity to represent sustainable tourism and differentiate the industry [18]. However, it becomes necessary for government entities to offer support to oil industries for a green, innovative, and competitive economy [13]. The growing interest for sustainable tourism as an important source of competitiveness is that it is thought to be the main driver typically able to offset any tourism recession [5], which is the pandemic caused by COVID-19. In summary, it can be stated that to form a competitive tourism market, is necessary to ensure a sustainable industry that enhances the quality of products and/or services and meets the needs of consumers. According to these considerations, this research had as its main objective to analyse the studies on sustainable tourism based on the competitiveness of the olive oil sector to understand the research directions and their respective development. To this end, a bibliometric analysis of the 157 identified studies will be performed using Bibliometrix R software to draw precise conclusions about research trends based on publications to date. In this research, substantial analyses will be taken into account, such as the evolution of scientific production, journals with more participation and citations, co-occurrence of the terms, documents with more citations, and co-citations between authors.

As far as structure is concerned, this study is organised into four sections. The first alludes to the introduction, which presents elements about the importance of the theme. Next, the methodology used is presented, with specific reference to the bibliometric analysis method. The third section deals with the presentation and analysis of the results. Finally, the main conclusions, limits, and challenges for further scientific studies are indicated, as are the contributions for future researchers and professionals in the field.

In conclusion, it is intended to help researchers, managers, and decision-makers by offering a current overview of how the fields have been approached and the future trends. It will also provide relevant data to combine sustainable tourism and competitiveness and turn the olive-growing sector into a more inclusive and competitive one.

## II. METHOD

In this study, it was decided to apply a bibliometric analysis because it is a suitable methodology to explore the state of the art of the research field and allow to systematise the contributions of the topic in a reproducible way. Furthermore, bibliometric analysis is appropriate to avoid subjectivity and provide a holistic view of publications in various domains, such as driving themes, authors, papers, journals, and countries.

For this purpose, the Scopus database was initially used to investigate the scientific production published until September 2021 to study the literature in the specific field of sustainable tourism as a driver of competitiveness in the olive sector.

Even though Web of Science is considered to be another important database, there was a total overlap between the two,

and we chose to use only Scopus. We then decided to search by title, abstract and keywords using the terms "sustain\* tourism", "olive oil", "olive sector", "strategies", "competitiveness" and "competitive market", which resulted in a total of 255 articles. To fulfil the study's objective, it was decided to refine the results by considering only full articles in the English language, which resulted in 157 articles that were subjected to the bibliometric analyses presented later. For the consummation of the results, the Bibliometrix R software was used.

## III. PRESENTATION AND ANALYSIS OF RESULTS: BIBLIOMETRICS

This section presents the bibliometric information extracted from 157 scientific articles, 93 related to sustainable tourism and 64 to competitiveness, published in the Scopus database between 2000 and September 2021. Note that the documents under analysis (n=157) were written by 489 authors (3.11 authors per document) who used 560 keywords. For the elaboration of the scientific studies, 7782 references were used. Table I presents these results.

TABLE I. GENERAL RESULTS OF THE BIBLIOMETRIC SURVEY (2000-2021).

<i>Bibliometric Data</i>	<i>Quantity (n)</i>
Publications (articles)	157
Authors	489
Authors by document	3.11
Keywords (general)	547
Authors Keywords	560
Cited References	7782

Source: Authors' elaboration from Scopus data.

### A. Evolution of Production in the Research Field

The analysis of scientific production presents itself as one of the most used bibliometric indicators in quantitative analysis. In effect, Fig. 1 shows the trends in the literature from 2000 to 2021 for the fields of sustainable tourism and competitiveness. From the graphical analysis, it can be seen that there is an explosion of contributions since 2015, with the first article indexed in Scopus in 2000, both in the sphere of competitiveness and sustainable tourism. Furthermore, an evolution of the publications is observed where it is concluded that both researchers and professionals have shown a growing interest in the themes, since there has been a significant growth in the last 20 years, with special mention to the year 2020. In a comparative analysis, the results highlight the greater scientific production on aspects related to sustainable tourism than on aspects related to competitiveness.

In compendium, the trends in the literature highlight a greater production in recent years and, at the same time, a deeper concern with sustainability issues and how it can be a lever for the sector's survival in a changing environment.

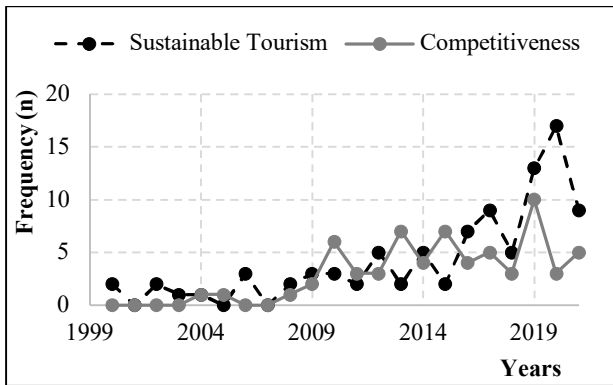


Figure 1. Evolution of scientific production: Sustainable Tourism and Competitiveness.

### B. Analysis of the Producing Countries

To visualise the representativeness of the countries, the ten countries with the most citations were identified, confronting them simultaneously, with those that present a higher scientific production (Tab. II). The results show that the country with the most citations is the United States (513 citations), followed by Spain (452 citations), Italy (285 citations), South Africa (166 citations), and Canada, which ranks 5th with 105 citations. It is worth mentioning that Spain (61 documents), Italy (51 documents), China (27 documents), Portugal (21 documents), and Greece (15 documents) are the countries with the highest scientific production in the area under study. This means that these countries are the ones that give the most attention to this type of tourism as a strategic tool in the case of olive-growing development. A special mention for Portugal that, although it ranks fourth among the countries with the highest scientific production, it only reaches 18 citations, placing it 19th on the list.

TABLE II. THE NUMBER OF ARTICLES COUNTRY.

Country	No. of citations (n)	No. of publications (n)
United States	513	5
Spain	452	61
Italy	285	51
South Africa	166	4
Canada	105	5
China	100	27
France	93	7
Greece	61	15
Netherlands	58	4
Australia	56	11

### C. Sources with the Most Impact

In general terms, 96 were checked regarding sources, but only the top ten were considered for analysis. Thus, in Tab. III, we can examine the top ten journals where scientific studies related to the themes of this research were published and, simultaneously, the number of citations for each journal, which total 395 citations. It should be noted that, with an eminent disparity, "Sustainability" proved to be the journal with the most

publications, which translated into 14% (n=22). This is followed by the "Journal of Sustainable Tourism" with 6% of the total sample (n=157) and with remarkable evidence regarding citations (161 citations). The top ten journals published 59 articles, representing 38% of the total studies. In summary, these results highlight a relevant aspect regarding exploring the topic in tourism and sustainability journals. However, it can also be seen those articles dealing with sustainable tourism and competitiveness linked to the olive growing sector have not yet been fully explored in management, strategy, and business journals.

TABLE III. TOP-10 SOURCES.

Sources	Articles (n)	Articles (%)	No. of citations
Sustainability	22	14%	72
Journal of Sustainable Tourism	9	6%	161
African Journal of Hospitality Tourism and Leisure	5	3%	8
New Medit	5	3%	23
Current Issues in Tourism	4	3%	58
British Food Journal	3	2%	25
Grasas y Aceites	3	2%	2
Journal of Cleaner Production	3	2%	25
Quality - Access to Success	3	2%	4
Asia Pacific Journal of Tourism Research	2	1%	17

### D. Keyword Co-occurrence Network

Here it should be noted that co-word analysis is essentially intended to determine research topics and collaboration networks. As such, given the importance of the theme, it was decided to analyse the co-occurrence of the general keywords in the documents, which revealed the main themes and the path of evolution of sustainable tourism research allied to competitiveness in the olive oil sector. Fig. 2 corresponds to the network created by the links between the 50 main terms.

From the results obtained it was found that scientific studies have been following a research line more oriented towards the fields "competitiveness" and "ecotourism" which translate, respectively, into 30 and 40 occurrences and present a high centrality reflecting the critical points of the research. Next are the terms "tourism development", "tourist destination" and "sustainable development" which have between 23 and 28 occurrences. In addition, when viewing the network, it is possible to identify the keywords that are used together in which are shown in the same colour, and at the same time it is possible to identify those that are used most frequently, which, as a result, makes it possible to identify the thematic groups in this field of investigation.



endogenous product, it strengthens the position in an emerging market. In this context, product strategy plays a crucial role in the survival of the olive industry. This shows that there is a close relationship between sustainable tourism and competitiveness. Moreover, that both are positively related to the economic performance of the olive sector. It can be inferred from this that the growing concern for environmental awareness on the part of stakeholders contributes somewhat to the evolution of sustainable tourism and, consequently, to the intensification of the sector's competitiveness.

Thus, with the bibliometric analysis, it was found that the authors' co-citation network behaves in three clusters with specific reference to the affiliations of Poland, Portugal, Italy and Spain. Concerning scientific production, the results obtained showed that the largest scientific production is concentrated on aspects related to sustainable tourism and that there has been a significant and exponential increase in the last 20 years. It was also possible to list the countries with the highest scientific production, among which Spain, Italy, China, Portugal, and Greece prevail. It was also found that the journal *Sustainability* was shown to have the highest concentration of publications, followed by the *Journal of Sustainable Tourism*. Finally, the driving themes focus on "competitiveness", "ecotourism" and "tourism development". In fact, the bibliometric analysis also showed that sustainable tourism, today, is a perennial element to leverage the sector and maintain its survival in an emerging market.

Based on the above findings, it is important to note that both public policies and managers and decision-makers must align their strategies to sustainable tourism to achieve competitiveness and positively interfere in the sector's environmental and economic performance. That said, the evidence suggests that the trends reverse into sustainable practices as an indispensable factor for developing stakeholder-focused competitive value strategies, essentially translating into an increase in the development of the sector.

Despite the contributions of this study, it also has some limitations. In this case, extending the study with the introduction of quantitative data is seen as pertinent. In addition, there was a lack of scientific papers that related the variable oliviculture, sustainable tourism, and competitiveness. Another limitation is that the present study focused only on specific aspects of bibliometric analysis. Finally, it should be noted that the sample only considers information included in the Scopus database, not allowing other data to contribute to the results. Furthermore, it is also important to note that the lack of research examining the relationship between competitiveness and sustainable tourism in the olive sector should not impede future research.

For future research, it is therefore considered pertinent to evaluate the opinions of managers and decision-makers about the sustainable tourism strategy as a driver of competitiveness and even to do a comparative study using reports for statistical data analysis. The study also suggests that more detailed analyses be carried out through, for example, a systematic literature review to assess the existing relationships between sustainable tourism and competitiveness and to identify the impact of the sustainable practices of the actors involved in the

growing olive sector on the economic performance of the sector and the country.

#### ACKNOWLEDGMENT

The authors are grateful from financial support to the project "OleaChain: Competences for sustainability and innovation of the traditional olive grove value chain in the North Interior of Portugal" (NORTE-06-3559-FSE-000188); and, to UNIAG, R&D unit funded by the FCT – Portuguese Foundation for the Development of Science and Technology, Ministry of Science, Technology and Higher Education under Project no. UIDB/04752/2020.

#### REFERENCES

- [1] S. Baziana and E. Tzimitra-Kalogianni, "Branding influence on consumer behaviour regarding olive oil," *Outlook on Agriculture*, vol. 48, no. 2, pp. 152-156, Jun. 2019, doi: 10.1177/0030727019841383.
- [2] J. A. Parrilla-González, E. M. Murgado-Armenteros, and F. J. Torres-Ruiz, "Characterization of olive oil tourism as a type of special interest tourism: An analysis from the tourist experience perspective," *Sustainability*, vol. 12, no. 15, 6008, Aug. 2020, doi: 10.3390/su12156008.
- [3] L. Zhu, L. Zhan, and S. Li, "Is sustainable development reasonable for tourism destinations? An empirical study of the relationship between environmental competitiveness and tourism growth," *Sustainable Development*, vol. 29, no. 1, pp. 66–78, Jan. 2021, doi: 10.1002/sd.2131.
- [4] J. I. Pulido-Fernández, L. Andrades-Caldito, and M. Sánchez-Rivero, "Is sustainable tourism an obstacle to the economic performance of the tourism industry? Evidence from an international empirical study," *Journal of Sustainable Tourism*, vol. 23, no. 1, pp. 47–64, Jan. 2015, doi: 10.1080/09669582.2014.909447.
- [5] K. Ryglová, I. Rašovská, J. Šácha, and V. Maráková, "Building customer loyalty in rural destinations as a pre-condition of sustainable competitiveness," *Sustainability*, vol. 10, no. 4, 957, Mar. 2018, doi: 10.3390/su10040957.Y.
- [6] S. S. Hassan, "Determinants of market competitiveness in an environmentally sustainable tourism industry," *Journal of Travel Research*, vol. 38, no. 3, pp. 239-245, Feb. 2000, doi.org/10.1177/004728750003800305.
- [7] G. Goffi, M. Cuculelli, and L. Masiero, "Fostering tourism destination competitiveness in developing countries: The role of sustainability," *Journal of Cleaner Production*, vol. 209, pp. 101–115, Feb. 2019, doi: 10.1016/j.jclepro.2018.10.208.
- [8] A. Khan, S. Bibi, L. Ardito, J. Lyu, H. Hayat, and A. M. Arif, "Revisiting the dynamics of tourism, economic growth, and environmental pollutants in the emerging economies-sustainable tourism policy implications," *Sustainability*, vol. 12, no. 6, Mar. 2020, doi: 10.3390/su12062533.
- [9] B. E. B. Escoto, M. P. Boza, and D. F. Madrigal, "Sustainable tourism: A competitiveness strategy perspective in Baja California," *Sustainability*, vol. 11, no. 24, Dec. 2019, 6934, doi: 10.3390/SU11246934.
- [10] J. C. Rodríguez-Cohard, J. D. Sánchez-Martínez, and A. Garrido-Almonacid, "Strategic responses of the European olive-growing territories to the challenge of globalization," *European Planning Studies*, vol. 28, no. 11, pp. 2261-2283, Nov. 2020, doi: 10.1080/09654313.2020.1716691.
- [11] J. F. V. Rebollo and J. A. I. Baidal, "Measuring sustainability in a mass tourist destination: Pressures, Perceptions and policy responses in torrevieja, Spain," *Journal of Sustainable Tourism*, vol. 11, no. 2-3, pp. 181-203, 2003, doi: 10.1080/09669580308667202.
- [12] A. I. de Luca et al., "Economic and environmental assessment of extra virgin olive oil processing innovations," *Chemical Engineering Transactions*, vol. 67, pp. 133-138, 2018, doi: 10.3303/CET1867023.
- [13] Y. He, P. He, F. Xu, and C. (Victor) Shi, "Sustainable tourism modeling: Pricing decisions and evolutionarily stable strategies for competitive tour operators," *Tourism Economics*, vol. 25, no. 5, pp. 779–799, Aug. 2019, doi: 10.1177/1354816618806729.

- [14] S. Klonaris and A. Agiangkatzoglou, "Competitiveness of Greek virgin olive oil in the main destination markets," *British Food Journal*, vol. 120, no. 1, pp. 80–95, 2018, doi: 10.1108/BFJ-07-2016-0331.
- [15] D. Scarpato, I. P. Borrelli, and M. P. Ardeleanu, "Competitiveness and environmental performance in the olive oil sector: An analysis of the Campania region," *Quality - Access to Success*, vol. 14, pp. 165–169, 2013.
- [16] C. Martos-martínez and M. Muñoz-guarasa, "The importance of endogenous resources for internationalization: Competitive advantages in the olive groves of southern Spain," *Sustainability*, vol. 13, no. 17, Sep. 2021, doi: 10.3390/su13179614.
- [17] A. D'auria, C. Marano-Marcolini, A. Čehić, and M. Tregua, "Oleotourism: A comparison of three Mediterranean countries," *Sustainability*, vol. 12, no. 21, pp. 1–23, 8995, Nov. 2020, doi: 10.3390/su12218995.
- [18] J. M. Hernández-Mogollón, E. Di-Clemente, J. A. Folgado-Fernández, and A. M. Campón-Cerro, "Olive oil tourism: State of the art," *Tourism and Hospitality Management*, vol. 25, no. 1, pp. 179–207, May 2019, doi: 10.20867/thm.25.1.5.
- [19] G. du Rand and E. Heath, "Current Issues in Tourism Towards a Framework for Food Tourism as an Element of Destination Marketing Towards a Framework for Food Tourism as an Element of Destination Marketing Background and Objectives," *Current Issues in Tourism*, vol. 9, no. 3, pp. 206–234, 2008, doi: 10.2164/cit/226.0.
- [20] J. Sanz Cañada and A. Macías Vázquez, "Quality certification, institutions and innovation in local agro-food systems: Protected designations of origin of olive oil in Spain," *Journal of Rural Studies*, vol. 21, no. 4, pp. 475–486, Oct. 2005, doi: 10.1016/j.jrurstud.2005.10.001.
- [21] P. W. Williams and I. F. Ponsford, "Confronting tourism's environmental paradox: Transitioning for sustainable tourism," *Futures*, vol. 41, no. 6, pp. 396–404, Aug. 2009, doi: 10.1016/j.futures.2008.11.019.
- [22] T. Cuccia, C. Guccio, and I. Rizzo, "The effects of UNESCO World Heritage List inscription on tourism destinations performance in Italian regions," *Economic Modelling*, vol. 53, pp. 494–508, Feb. 2016, doi: 10.1016/j.econmod.2015.10.049.
- [23] L. Andrades and F. Dimanche, "Destination competitiveness and tourism development in Russia: Issues and challenges," *Tourism Management*, vol. 62, pp. 360–376, Oct. 2017, doi: 10.1016/j.tourman.2017.05.008.
- [24] B. B. Boley and G. T. Green, "Ecotourism and natural resource conservation: The potential for a sustainable symbiotic relationship," *Journal of Ecotourism*, vol. 15, no. 1, pp. 36–50, Oct. 2015, doi: 10.1080/14724049.2015.1094080.
- [25] C. M. Chen, S. H. Chen, and H. T. Lee, "The destination competitiveness of Kinmen's tourism industry: Exploring the interrelationships between tourist perceptions, service performance, customer satisfaction and sustainable tourism," *Journal of Sustainable Tourism*, vol. 19, no. 2, pp. 247–264, Mar. 2011, doi: 10.1080/09669582.2010.517315.