Accessible Tourism: A Bibliometric Analysis from 2000 to 2021

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ABSTRACT

The term “Accessible Tourism” was first used in 1989. This term has the characteristic of being transversal. The aim of this work is to find out the current state of scientific production in this area of tourism in order to be able to answer future questions and identify new lines of research. To this end, we have carried out a bibliometric analysis covering the first two decades of this century. After defining the keywords, a search was carried out in Web of Science and the results were analysed quantitatively and qualitatively using VOSviewer. This analysis shows that from 2018 onwards, publications increased considerably, reaching a peak in 2020, mostly in the areas of geography and economics, as research in the area of tourism is still very recent. The number of authors is reduced to around twenty, with one of them standing out significantly in terms of number of publications and citations. The conceptual analysis shows the variety of terms used by researchers and how they have evolved over time, the most commonly used being “people” and “disability”, with others appearing such as “inclusive tourism” connected to “management” or “sustainable tourism”, which are more akin to current management.

1. INTRODUCTION

In recent times, accessibility has become relevant in various sectors, particularly in the tourism sector. The term "Accessible Tourism" was used for the first time by the World Tourism Organisation (UNWTO) in 2013, in a publication entitled "Accessibility: a competitive advantage in tourism destinations"; although as a concept it had already appeared some years earlier, specifically in 1989, in the report published by a group of British experts called "Tourism for All" [1]. This report, in addition to a study of the improvements achieved since 1981 (International Year of Disability), includes a definition of "tourism for all" as tourism that designs and develops tourism activities that can be enjoyed by any person, regardless of their physical, psychological, cultural or social condition.

In the 21st century, tourism is considered an essential element in the development of human beings and, therefore, as a universal right, regardless of our limitations. This means that any policy or action taken to improve access to the enjoyment of tourism for people with disabilities has an impact on the creation and development of a more comfortable and enjoyable tourism experience for the general public. For this reason, the term "Accessible Tourism" refers to the adaptation of the tourism environment for all users, as well as for people with special needs [2].

For a sector such as tourism, focusing on accessibility offers an opportunity for growth and the possibility of developing a better social policy and greater sustainability over time [3]. Particularly if we take into account that in 2050, one in six people in the world will be over 65 years old [4]. In this sense, it can be stated that "accessibility has become an important strategic factor in the tourism industry and a reality that governments must address by designing fully inclusive cities, spaces, services and information" [5].

At this point, it seems logical that the first step towards an in-depth study of tourism accessibility should be to find out what the research situation is in this area. For this reason, this study aims to find out what the production of articles is like, who the most relevant authors are and in which countries scientific production on this subject is greatest. In addition, we are also interested in knowing what terms are being used to describe this type of tourism, which is becoming more and more widespread, how they have evolved over time, and where research trends are leaning in the coming years. This is an innovation in this type of work, since, to our knowledge, none of the previous ones include a quantitative analysis of the data obtained. Thus, this paper will attempt to answer the following questions that are on the table:

(1) How has scientific production in this area evolved in recent years?
(2) Who are the most relevant authors in this area and the most cited?
(3) What are the most commonly used terms in research in this area and where do they lean towards?
(4) How do these main terms and concepts relate to each other?

Based on these questions, the following research objectives are proposed:

(1) To find out whether Accessible Tourism is an interesting topic for scientific research and - if so - how this line of work has evolved during the 21st century.
(2) To know who are the authors considered to be the most relevant on the subject and, therefore, the most consulted and cited in other research.
(3) To discover how the way in which we refer to Accessible
Tourism has evolved and how these terms are related.

In order to answer the questions in a reasonable way and to achieve the objectives, the systematic literature review has been chosen among different possible methodologies. This methodology offers us a structured approach to all relevant literature dealing with the area under study. Among the options presented, bibliometric analysis has been chosen as it is considered to be better suited to answering the questions posed [6]. In other areas of research of current interest to the tourism sector, bibliometric analysis is also used as a starting point for defining future lines of research. This type of study makes it possible to identify trends in research on the topic under study and its applications in the field of interest [7].

The following section describes the methodology, details the database used, together with the search criteria used, and the bibliometric and conceptual analysis techniques that form the methodological basis of the study. Subsequently, the results obtained and the main conclusions of the work are presented, in the form of answers to the research questions posed at the beginning.

2. METHODOLOGY

The questions posed in this work refer both to a quantitative part (evolution of publications by years, number of citations, relevant authors), and to a qualitative aspect (terms used, relationship between concepts). For this reason, we have used the WoS Core Collection database and a search was carried out in March 2022 (FECYT 2001), with the terms that can be used in articles in the area of study. Subsequently, a bibliometric analysis of the results was made using the software VOSviewer [8] and Bibliometrix.

The choice of this database is based on the fact that it is one of the most extensive databases, concentrating the scientific publications with the most significant impact for our area of research. On the other hand, and in order to be as rigorous as possible, the same search was carried out in Scopus, the other major database of scientific publications. The result of the search in the latter resulted in a smaller number of articles that were also found in Web of Science. For this reason, we decided to use the latter database to avoid duplicating results and making the study ineffective. The search for articles was carried out by including different keywords that currently designate the object of study.

Although it is true that there is some previous bibliometric analysis, such as that of Tite, Carrillo and Ochoa, from 2021, or that of Qiao et al. from 2022, these are more limited than the one we propose here. In the case of the former, the study covers publications between 2008 and the first half of 2019, and the latter from 2008 to 2020. For our study, we have extended the search in years by examining publications from 2000 to 2021. On the other hand, the most recently published article analyses only articles written in English, whereas our study includes both English and Spanish articles. Furthermore, in our case, we have included in the search different terms used to designate Accessible Tourism, which have evolved over the years and are currently used interchangeably by different authors.

In order to make the search, the first step was to determine which key words to include, so that the results would be as complete as possible. In the selection of these words, we have studied previous publications that refer to this subject, as well as taking into account the names that this tourism segment has outside the academic field. Moreover, the terms used by researchers and users are varied and have evolved over time, which is why we decided to carry out a quantitative study in this regard. Finally, we decided to use “Accessible Tourism”, “Accessibility tourism” and “Inclusive tourism” as these are the terms most commonly used, although this does not prevent the use of other terms such as “Tourism for all” or synonymous expressions. After entering them in the “search by subject” section and narrowing down the years between 2000 and 2021, we obtained the results of the publications that included these terms in the title, abstract and/or keywords. The query returned a total of 252 articles that met the requested requirements.

Once we had cleaned the data and obtained a significant sample, we continued the work with VOSviewer, one of the most widely used tools for processing keywords and mapping flows and correlations between them [9]. Our aim was to understand the evolution of these concepts and, to this end, a bibliometric analysis was performed, for which WoS was used to learn more about the concepts of "Accessible Tourism", "accessibility tourism" and "inclusive tourism" through the analysis of their bibliometric indicators. Likewise, an analysis of the productivity and impact indicators has been made, showing the list of the main authors, as well as the number of articles and citations of the same [10].

On the other hand, a conceptual analysis has been carried out which has allowed the study of the main concepts and/or themes related to Accessible Tourism, offering a better observation of the structure, evolution and trends related to the use of these concepts. For this analysis, we have used the R Bibliometrix software, an open-source tool that allows an exhaustive mapping of the data obtained, showing the results in a more comprehensible way than other available tools [11].

In the following section, Results, we will see the different analyses of the number of publications over the period studied, the authors with the highest number of publications and the most cited authors, the countries of origin of the correspondence authors and the terms used in the published articles.

3. RESULTS

3.1 Bibliometrics analysis

Based on the publications obtained in the systematic search for information described in the previous section, between the years 2000 and 2021, and after making the consultations that have served to carry out the analysis, the results presented below have been obtained. These are presented in three sections, in accordance with the research questions posed at the beginning of this study. The first one shows the analysis of the publications, the second one is related to the authors and the third one to the terms used and the relationship between them.

3.1.1 Analysis of publications

For this bibliometric analysis of accessibility, we have only used publications in the form of articles, disregarding other forms that have appeared in the search, such as - for example - book chapters. It should be noted that the search returned 252 articles spread over the years on which we focused our search. Of these articles, most appear in publications in the area of geography and/or economics, not tourism, because research in this area of knowledge is relatively young. However, they make explicit reference to this area of study.
As can be seen in the Figure 1, from the years 2000 to 2004, the graph shows that the number of publications that include the terms entered in the search are almost non-existent. Even before 2000, the first year of our study, there is only a publication in the area. The first peak of interest appears in 2006, to fall in the following year and rising until 2012, when we see a first significant number of publications, which is not really that high, just over 15 articles worldwide. In the following two years, 2012 and 2013, the number of publications fell and it was not until 2015 that the next important peak occurred, closer to 20 publications worldwide. Parallel to these increases in publications, there is also an increase in interest in accessibility that translates into new norms and social changes. In other words, it coincides with a change in society’s mentality following the economic crisis of 2007. Towards 2017, the number of publications falls again, but remains above the falls that had occurred previously. From 2018 onwards, a rise is observed until its highest level, with more than 35 publications, in 2020. However, the number of publications in 2021 fell again, probably due to the effects of the health crisis.

3.1.2 Authors analysis

To begin the analysis of the authors, a query was made to return a list of the most relevant authors according to the number of works published. Subsequently, and within these most important authors, we analysed who were the most cited, as well as their relationship with their countries of origin. As articles are usually written by several authors and have a corresponding author, another query was made regarding the relationship between the publications and the countries of their corresponding authors. The result of the latter query showed some differences from what was expected.

Figure 2 shows the top twenty authors, by number of publications, between 2000 and 2021. It is striking how the first of the authors is far behind the rest, with 20 publications in the period analysed, while all the others are at a greater distance from the first and in a much closer range to each other. Eight of them have three publications in the years covered by the study, with the number of authors decreasing as the number of publications increases. This is possibly due to the fact that this topic of study is not the central theme of their research. Thus, we observe that six authors have 4 publications, two have 5, and three have 6. These results made us wonder whether the number of citations of all these authors corresponds to this analysis. When we ran the query, it returned the data shown in Figure 3.

In the previous figure, it can be seen that the author with the most publications is also the most cited, in one of his publications, with 134 citations, and appears again, in third place, with 115 citations, with another of his articles. In addition, it is worth noting that the journals in which both works are published are in the field of tourism. It can be seen that only three authors exceed one hundred citations, while the remaining 17 are distributed as follows: seven are above fifty citations and the other 10 are below that number.

At this point, it seemed necessary to go a little deeper and analyse the countries of origin of the correspondence authors of the different publications in order to have a clearer vision of the global reality on this subject (See Figure 4).
of the production of articles on the subject in question. This position of Spain shows, according to the data obtained in this bibliometric analysis, that research in Accessible Tourism is mostly carried out in collaboration with other researchers and that the number of researchers working on the subject is high. In addition, the graph shows that researchers listed as main authors have a higher number of publications in their home countries (SCP) than in other countries, where they publish in collaboration with other researchers (MCP). The case of Portugal is very significant, with a very high number of publications in its own country, over 20, and almost non-existent publications in collaboration with researchers from other countries. In the opposite case are South Africa and Sweden, where the main authors have a lower number of publications in their own country, appearing in greater numbers as corresponding authors. In the case of Austria, Korea, Canada, Italy and Poland, the data show that both lead and corresponding authors belong to the same country.

In order to continue with the achievement of the objectives set and once the number of publications and authors have been analysed, the following analysis is about the terms used in the publications to designate this type of tourism. In the following sections, the different terms used are studied, as well as the relationships between them and between them and the authors.

3.1.3 Analysis and evolution of terms used in publications

Over the years, the terms used to designate Accessible Tourism have changed. Some publications call it "Accessible Tourism", others "inclusive tourism", others designate the group as "people with special needs", up to a broader concept which would be "Tourism for all" and which would include social differences, as well as physical, sensory and/or psychological ones. The use of this broad terminology is justified in the interest of finding a name that covers the whole group, bearing in mind that this is a very broad and varied group. On the other hand, the intention is increasingly to broaden the meaning of the term to include a greater number of people, both those who have a permanent or transitory physical, sensory or psychological disability, and those who have other economic or social needs [12]. The bibliometric study has therefore focused on an intensive search of the concepts and terms that have been used in the different publications over the years to identify Accessible Tourism. As a result of this search, this map of keywords representing these concepts has been obtained and can be seen in Figure 5 below.

A first look at Figure 5 shows that the map of terms linking the keywords that appear in the search articles is divided into four large nodes or clusters. As can be seen, the first and largest of these corresponds to the term "accessible tourism", which means that it is the term most used by the authors analysed. The other nodes are of a similar size to each other, although it can be perceived that some, such as "travel", have more connections to other terms included in the analysis.

If one zooms in on the most important nodes, it can be seen that:

In cluster 1, located in the centre of the map and with the largest size, the term "Accessible Tourism" is strongly linked to "travel", as usual, but also to "restrictions", this shows the relationship of interest between the ability to enjoy tourism or not, depending on the possibilities of the destination or service in question. At the next level of relationship would be "perceptions" and "market", further away from the main node, to leave terms such as "industry", "motivations" and - even - "participation" at an even lower level. This may be due to the fact that there are very few academic studies, so far, that collect the motivations and/or opinions of this group, from the consumer side, or of plans developed by the industry, from the supply side. It is curious how the terms "competitiveness", "hotel" and "accommodation" are less related to the main term. As academic work, an analysis of accessibility in hotels is perhaps of little significance, given that the little legislation that exists on the subject is focused precisely on facilities, be they hotel or otherwise.

Cluster 2 is in the lower left part of the map, in green, and there is also a large network of links between it and different terms. "Inclusive tourism" is closely interrelated with the terms "sustainable tourism", "management" and "future", which shows that a tourism that takes into account all people is the way forward in the years to come in order to make it sustainable over time. At the next level of interrelation are the terms "challenges", "inclusion", "responsible tourism", "inclusive development", "perspectives", "policy" and "collaboration", which are all along the same lines of sustainable tourism, but which also indicate some of the actions to be taken to achieve it, including a good tourism policy.

Cluster 3, "accessibility", at the top, in blue, is closely interconnected with "hospitality" and "access", at the first level. On the second level, terms such as "services", "attitudes", "sustainability" or "travel constraints" appear, terms that allude to services in which accessibility is not regulated by specific rules, although in some cases there are some that it is advisable to follow, and this is a subject to be studied with interest.

Cluster 4, the node shown in yellow with the word "people" in the top centre, is connected to terms such as "disabilities", "experiences" and "model" in a larger way as they are terms that are closely linked when referring to this topic, and to other smaller nodes such as "quality", "satisfaction", "web accessibility" and "tourism for all", as the latter refer more to services than to people. This last connection between these nodes is very curious at this level, as the term "tourism for all" is the one that is increasingly being used to refer to Accessible Tourism, as it includes any kind of special need referred to, whether physical, psychological or social, as well as including what is known as "social tourism".

It should be noted that the term "universal design", which appears at the top of the map, is linked to all the main nodes,

Figure 5. Co-occurrence network of keywords
Source: Prepared by the authors using VOSviewer based on WoSdata
as in recent decades this concept has been considered the best way to make environments suitable for everyone. Universal Design refers to the design of products and environments so that they can be used and enjoyed by the greatest number of people without the need for adaptations or special design [13].

Following this same line of argument, the next figure (Figure 6) shows the relationship between the terms and concepts most used by the main authors in the area that is the object of study of this article and the countries of their correspondence-authors. This map reveals which is the nomenclature most used by the authors in their publications to name Accessible Tourism and the countries of their correspondence-authors.

Figure 6. Relation keywords, authors and correspondence-author countries
Source: Prepared by the authors using WoSdata

It can be seen that all the authors in the figure use the term "Accessible Tourism", followed by "disability". Thus, the author with the most publications and the most citations appear in first place, both for himself and for the correspondence authors, who would be in his own country - Australia - as well as in New Zealand, Spain and China. This result is not surprising, since, in addition to being the most commonly used term, it is the first among the keywords that constitute our search.

To complete this work, a conceptual analysis was carried out in order to have a broader and more complete vision of the existing reality in the field of Accessible Tourism, which is described in detail in the following section.

3.2 Conceptual analysis

As a complement to the previous work, we have also carried out a conceptual analysis that allows us to quantify and study the presence, meaning and relationships between the terms used in the publications that make up the result of the search we carried out for this study. This type of analysis developed from analytic philosophy between the 1930s and 1950s, but is applicable to a large number of research fields, especially in the social sciences. Its focus is on the meanings of words and/or concepts and how these relate to each other.

To do this, the R Bibliometrix tool has been used, as already detailed in the methodology, which allows us to observe in a comprehensible way how terms are related and evolve over time. The figure above (Figure 7) shows the results.

The intention in introducing this analysis, which is rarely included in this type of study and which represents an innovation in this type of study, is to find out - by means of a diagram - how the concepts have evolved in the publications in the area covered by this study between 2000 and 2021. Looking at Figure 7, it can be seen that the terms "travel", "people" and "disability" appear in the bottom right-hand corner, which tells us that they are the most mature, i.e., the most used throughout the period, from the beginning, which makes them the basic concepts of the subject of the study. Other terms, such as "attitudes", "impacts" or "place" also appear in the quadrant of the most basic terms, but much closer to the central axis in terms of relevance and in terms of density of occurrence, which shows that they started to be used later and less frequently.

The node formed by the terms "leisure", "barriers" and "Accessible Tourism" is located in the central axis of the degree of development, with a greater part towards the maturity quadrant. It is a node with a certain density, but still has some way to go in the future. The terms it encompasses have been used in the past, as we mentioned earlier that "Accessible Tourism" was first used in 2013, but they are essential to refer to this segment.

One of the objectives set out in this study is to find out how the terms that designate this study theme have evolved over the years studied and to find out where they are leaning towards in the future. Thus, at the top right, in the most dynamic quadrant, there are nodes with the terms "tourism experience", "quality", "management", "future" and "challenges", which are the ones that show the best and most movement in the most current publications and, foreseeably, will be used in the near future.

Finally, as new terms that are beginning to be used within the area, there are two small nodes, in the upper left quadrant, with the terms "economic-growth" and "investment", undoubtedly because these are the terms that will be related to Accessible Tourism in the coming years, as this segment represents a business opportunity for the sector [4, 14].
In Figure 8, and as a complement to this study, a factor analysis of the terms used has been carried out. In this case, they do not appear grouped, but in a simple form. The figure shows the same breakdown as in Figure 7, with terms such as "tourism experiences" appearing in the upper right quadrant, which means that it is a fairly dynamic term that is widely used by the authors analysed.

It can be observed how some terms that remain latent in the previous figure can be better appreciated here, for example "web accessibility", which appears as a concept that is beginning to take on relevance within Accessible Tourism and that - probably - will begin to acquire relevance in research in the coming years among the scientific community.

4. CONCLUSIONS

As the last part of this research, and after having analysed the concepts of "Accessible Tourism", "Accessibility Tourism" and "Inclusive tourism" from a bibliometric and conceptual analysis perspective, the conclusions reached in response to the questions established at the beginning of this study are presented. After analysing the evolution of scientific production in the area in question in recent years, it seems clear that the number of publications on Accessible Tourism over the last two decades has increased considerably. This shows a growing interest in the subject, both socially and economically, because of the possibilities offered by this market niche. Although it is true that publications have been growing over the years, they have done so timidly until 2018, when there was a large increase that has been maintained until 2020, these two years being the ones with the highest number of publications. It is to be expected that, in the years to come, this topic will be the subject of more interest and - therefore - publications, due to the great potential and interest of this niche market for the tourism sector and the increasing awareness of the subject.

On the other hand, one of the objectives was to find out who are the most relevant authors in the area in question and the most cited among the scientific community, and it has been observed that, among the 252 published articles analysed for this study, around twenty of the most relevant authors stand out, with a number of publications between three and six, in most cases. Among all of them, Darcy [3] stands out as the author with the highest number of publications, specifically 20 articles, which places him at the head of the field, far ahead of the rest. In addition, he is the most cited author, although half of them maintain a high and fairly close number of citations, as opposed to the other group which would be on a lower scale.

It has also been observed that research in this field and its subsequent publication is carried out jointly, in collaboration with other researchers. Also, these researchers or corresponding authors may belong to the same country or to other countries, outside the borders of the principal researcher's place of origin; although the tendency is for the greatest number of publications to be in their own country, with some exceptions, such as Sweden or South Africa.

On a different hand, in order to know the most relevant lines of research, it was interesting to know which are the most used terms in the research in this area. In terms of terminology, it seems that "Accessible Tourism" is the term that has been used and is used the most to refer to this segment. In fact, in the conceptual analysis that has been carried out, it appears as a mature term, already with a long history of use. However, terms such as "inclusive tourism" are gaining importance and appear interconnected to others such as "future", "management" or "sustainable tourism". It is logical to think that these terms will gain more strength in future works, as they refer to a broader concept related to other areas, which shows the transversality of tourism and its constant evolution. Finally, the relationship between these terms and the main concepts was analysed, showing that the terms that appear as the main ones, as they are the most used in all the publications, are terms that refer to broad concepts necessary to identify the area that is the object of study. Among them, "Accessible Tourism" or "travel" or "people". However, they are closely related to concepts that - at times - punctuate or identify the subject, such as "barriers" or "accessibility", and at other times refer to the more industrial side of tourism, such as "management", "market" or "future". At last, far from the central nodes, but interconnected with all of them, there are some terms that are in a much more dynamic moment, becoming important in the area and with expectations of growth in their use in the near future. These are "universal design", "tourism for all", "web accessibility" and "inclusive development".

This research work has shown that, although Accessible Tourism is a subject that has been of concern to researchers since the early 2000s, it was not until well into the second decade that the number of publications has risen. We can also see, from the topics covered in the publications, that it is a subject of some importance, since the ageing of the population in the most developed countries - those that do more tourism - is increasing, so that the number of people with disabilities and/or special needs is going to increase considerably in the coming years. On for the other hand, from a more business and sustainable perspective, improving accessibility in the field of tourism will help to correct the lack of seasonality in certain areas and make better use of the available resources. It should be borne in mind that accessibility is a fundamental pillar in the development of what are known as Smart Tourist Destinations (STD), a concept that has appeared strongly in recent years linked to Smart Cities, which aim to develop more sustainable places [7].

With this in mind, some future lines of research are opened up. One of these could be the analysis of the different resources available in order to determine their degree of accessibility. Based on this analysis, it will be possible to determine the degree of adaptability of the different tourist destinations to the new needs of the population and of this group, which forms a tourist segment in its own right. In addition, it is possible to increase knowledge about the seasonal adjustment and economic growth possibilities of this segment, in order to transfer the data to the sector and work towards the development of tourism that is more accessible for all. In this sense, and as another line of research, it would be useful to investigate further the influence that the existence of accessible resources has on the choice of holiday destinations, as it may not be relevant in the case of sun and beach destinations, the first choice of people with disabilities regardless of the level of accessibility [5]. The analysis of accessibility regulations, as no studies of this type exist, as well as studies on tourism sociology applied to the social and business evolution on this subject, would be some lines to be taken into account as an object of study. All these gaps in scientific knowledge are the reason why, in recent years, there has been a greater interest in this area of study. It is necessary to point out that, in order to carry out this study, we have
encountered some difficulties, especially in relation to the lack of a generally accepted term to designate this tourist segment. This means that different authors use different terms indiscriminately, sometimes in the same article, so it is necessary to choose the key words carefully so that the search results include works referring to this subject of study.

On the other hand, this work has its limitations. Firstly, only publications in the form of articles have been considered, without taking into account others such as book chapters. In terms of time, it covers a period from 2000 to 2021, although it is foreseeable that, in the coming years, the number of publications in this area will increase considerably, due to the growing interest in it. Also, as noted above, the terminology for naming this tourism segment is varied and constantly changing, so some names may not have been included, although we have tried to keep the key words to those most generally used.

REFERENCES


