Original Research Article

Smart tourism destinations: The backbone of tourism recovery

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ABSTRACT

The world tourism industry is experiencing the worst situation in its history due to the health crisis caused by COVID-19. The problem is particularly acute in countries such as Spain, which had an important tourism sector that directly employed about 3 million people, 13% of total employment, and accounted for about 12% of its GDP. In order to recover, Spain is betting on the model of Intelligent Tourism Destinations (ITD) and the ITD Network that encompasses these destinations. The ITD methodology is based on five main lines of action: Governance, Innovation, Technology, Sustainability and Accessibility. It also highlights the importance of knowledge and the use of Tourism Intelligence Systems that allow a correct decision making.

Keywords: covid-19; smart tourism destinations; recovery

1. Introduction

Tourism is one of the most complex and important economic and social phenomena worldwide and this is reflected in the figures collected every year by the main tourism indicators: in 2019 the number of international trips in the world exceeded 1.4 billion. However, the changing and dynamic global economic environment, demographic and environmental changes and, above all, rapid technological advances present tourism destinations with multiple and continuous challenges, while at the same time offering great opportunities for economic and social development.

In addition to all these factors that have been present in tourism management for decades, there are issues such as seasonality, the redistribution of tourist flows and mobility, as well as realities that have become priorities, such as citizen participation in decision-making and public-private cooperation. The competitiveness of destinations will therefore depend on meeting these challenges and on their capacity and speed to adapt and seek solutions that will enable them to compete under the best conditions.

In the current context, year 2020, in which the whole world is affected by the COVID-19 pandemic that has closed borders and restricted mobility, the tourism sector has collapsed in all its activities (air transport, accommodation, etc.), and the situation is causing serious job losses in the sector. Recovery will depend on its capacity and on the support of the public sector to keep the productive fabric intact, and
to avoid the decapitalization and closure of companies. It is more necessary than ever to think about the recovery of tourism so that it can once again become the economic engine it has always been.

Everything that is happening right now is creating a paradigm shift worldwide and in all kinds of sectors and activities, the situation will never be the same as it was before the pandemic.

In the case analyzed in this essay, the Spanish tourism sector, it should be emphasized that Spain has a broad background in tourism management, its pillar being knowledge and Tourism Intelligence, tools that have kept the country in a position of world leadership until now. Therefore, the economic recovery of the tourism sector must be based on this Tourism Intelligence and on networking, jointly among all the local destinations that make up the national destination, with full public-private and public-public collaboration.

In this new paradigm, tourist destinations will play a key role in the promotion of active policies to reactivate demand and in the implementation of specific action plans in response to the current crisis.

In this line, the Spanish destinations already had a tool, to face together situations such as the current one, or instrument for the continuous improvement that allows the development of a sustainable tourism model in the long term and in all its aspects (socio-cultural, environmental and economic). The Spanish Tourism Administration launched a few years ago, the Intelligent Tourism Destination (ITD) program. This initiative, which emerged from the National and Integral Tourism Plan 2012-2015, is one of the major commitments of the State Secretariat of Tourism of the Government of Spain.

Throughout this process, the Sociedad Estatal Mercantil para la Gestión de la Innovación y las Tecnologías Turísticas, S.A. (SEGITTUR [https://www.segittur.es]), a tourism policy instrument of the Spanish State Secretariat for Tourism (https://turismo.gob.es), acts as manager and promoter of the methodology and its application, and also seeks to generate value through various projects derived from its implementation, such as the ITD Network.

The keys to tourism governance, strategic planning, communication, coordination, transparency and cooperation are also the guidelines that should help to manage the initial emergency situation and the subsequent scenarios arising from the crisis caused by the COVID-19 pandemic in the destinations. At a time of great uncertainty, when tourism is one of the hardest hit sectors, management tools are needed to provide reliable, consensual and coordinated responses, adapted to a changing environment, to ensure the security that will be decisive in the recovery of tourism. Now, more than ever, it is necessary to work as a team and in a coordinated manner, and the ITD model is the basis of this response; it is the pillar of the recovery of the Spanish tourism sector.

This document is structured as follows: firstly, an approach to the world crisis situation generated in 2020 by the COVID-19 pandemic is made and specifically the focus is placed on the case of the Spanish tourism sector; then the model of tourism management based on Smart Tourism Destinations, of which Spain is a pioneer worldwide, and how this model that pivots on 5 fundamental axes—Governance, Innovation, Technology, Sustainability and Accessibility—can contribute to the recovery of the tourism sector in a faster and more consolidated way is approached. Finally, the main conclusions are presented.

2. The global crisis in 2020 due to COVID-19 and its effects on tourism: The Spanish case

In the year 2020, as already mentioned, a serious health crisis has arisen with devastating repercussions in all countries of the world, both socially and economically. Among the consequences of this situation is the reduction in the mobility of people at all levels (international, national and local), and this
is a missile in the waterline of the global tourism sector. The World Tourism Organization (UNWTO [https://www.unwto.org/en]) in its press release of May 7, 2020 already announces a drop in international tourism flows of 22% in the first quarter and could fall by 60 to 80% for the year.

The situation is exceptional, as it is not a tourism crisis as such, but a public health crisis, a global pandemic. UNWTO Secretary-General Zurab Pololikashvili said in this regard:

The world is facing an unprecedented health and economic crisis. Tourism has been hit hard, and millions of jobs are at risk in one of the most labor-intensive sectors of the economy\(^1\).

Globally the impact in 2020 can be quantified as a loss of between 850 and 1.1 billion international tourists, a reduction of between $91 billion and $1.2 trillion in tourism export earnings, and between 100 and 120 million jobs in direct tourism sector employment.

In this paper, the focus will be on the case of Spain, its tourism sector and the effects of the pandemic. The tourism sector has represented in the last 60 years one of the main productive activities in the Spanish economy. Spain at international level and from the perspective of demand until 2019 has been the second economy both in number of international tourists received (behind France) and in tourism revenues in Balance of Payments (behind the USA), in addition to occupying the first place in the world ranking of tourism competitiveness, according to the last three editions\(^2\text{-}^4\) of the biannual report of the World Economic Forum.

An approximation has been made for 2020, comparing with the previous year, with the information available to date on the impact of the COVID-19 pandemic on Spanish tourism. Estimates of the impact on inbound tourism of the restrictions on mobility and border closures, ordered last March 16 by the Government of Spain\(^5\) when declaring the State of National Alarm and the confinement of the population and border closures, offer results of historical falls never recorded before.

It should be emphasized that this is only a mere approximation or estimate, due to the fact that uncertainty is high and conditions any forecast on tourist demand at world and national level. The indications of the Spanish Government’s Plan for transition to the new normality\(^6\) have been taken into account to establish the premises for the estimates.

3. Impact on inbound tourism in Spain

According to data from the Border Tourism Movements Survey (FRONTUR) of the National Statistics Institute (INE [www.ine.es]), a total of 83.7 million international tourists arrived in Spain in 2009 and spent 92,259 million euros, as measured by the Inbound Tourism Expenditure Survey (EGATUR) of the INE.
The estimate of the impact is based on the premise of the loss of activity from mid-March to June included and resumes it with restrictions in July 2020, for all accesses and with the assumption of 40% of capacity. For January, February, March and April 2020, the data published by the INE are used.

The result with these assumptions reflects that in 2020 international arrivals to Spain would amount to only 28.8 million, being around 18.2 million in the period from July to the end of the year. The estimated year-on-year drop is 65.6%.

Inbound tourism expenditure would fall to 32,466 million euros, a year-on-year decrease of 64.8%.
4. Impact on domestic tourism in Spain

Domestic tourism is tourism carried out by Spanish residents within the Spanish territory. According to provisional data for the year 2019, published in April 2020 from the Survey of Tourism of Residents in Spain (ETR) prepared by the INE, of the 193.9 million trips made by residents, 89.6% were to Spain, with domestic tourism amounting to 173.7 million trips, with an associated expenditure of 32,014 million euros and a volume of overnight stays of 649.5 million. In addition, residents in 2019 made a total of 260.6 million excursions or trips without overnight stays, which generated an expenditure of 8,800.2 million euros.

In domestic travel, spending on bars and restaurants accounted for the largest percentage of total spending (26.5%), followed by spending on accommodation (24.9%) and transportation (21.8%).

For the estimation, several assumptions have been made: in January and February 2020 without variations, in March only activity for two weeks and in the rest of the months only activity since July and with the condition of 40% of capacity in market accommodations, in non-market accommodations (such as second homes, free housing) without interannual variations in the months with activity. It should be taken into consideration that on the one hand it is underestimated because it does not take into account the transfer of outbound trips abroad now to Spain, and on the other hand it is overestimated because of the reduction in the purchasing power of potential travelers.

Table 1. Impact of COVID19 on resident tourism to Spain (Domestic Tourism)

|                  | 2019          | 2020 (1)       | Var.% | Var.abs. | Var.abs. |
|------------------|---------------|----------------|-------|----------|----------|
| Trips            | 173,754.972   | 101,423.736    | -41.6%| -72,331.236 |
| Overnight stays  | 649.516.399   | 415.174.489    | -36.1%| -234.341.910 |
| Travel Spending (Millions €) | 32,014.0       | 16,317.5       | -49.0%| -15,696.5     |
| Excursions       | 260,590.558   | 184,219.660    | -29.3%| -76,370.898   |
| Spending on excursions | 8,800.2          | 6,200.2        | -29.5%| -2,600.0       |
| Total domestic tourism expenditure (Millions of euros) | 40,814.2        | 22,517.7       | -44.8%| -18,296.5     |

Source: SEGITTUR, based on data from the Spanish Residents’ Tourism Survey (ETR).

The result is that in 2020 residents will make 101.4 million domestic trips, 41.6% less than in the previous year, and a total of 415.2 million overnight stays, of which 79.4% will be in non-market accommodations and 20.6% in market accommodations (hotel and non-hotel). Travel spending will account for 16,317.5 million euros (-49.0%). Excursions will exceed 184.2 million and their associated expenditure will be 6,200.2 million.

Total domestic tourism expenditure, including travel and excursions, will amount to 22,517.7 million euros (-44.8% year-on-year variation).

5. Impact on employment and GDP

The tourism sector has been very important in the Spanish economy over the last half century, accounting for around 13% of total employment and more than 2.6 million direct jobs, according to data from the Social Security Affiliation, the Labor Force Survey (EPA) and the Tourism Satellite Account (CSTE).

Assuming a similar year-on-year fall in tourism employment for the year 2020 as in March 2020 (-10%), it is estimated that the absolute year-on-year fall will be around 260 thousand jobs.

The contribution of tourism to the Spanish GDP is 12.3%, in total 147,946 million euros, according to last official data for the year 2018, according to the Tourism Satellite Account in Spain published in December 2019 by INE[7].
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Based on the premise, in accordance with the previous results for inbound and domestic tourism, of a 65% drop in inbound tourism consumption and a 45% drop in domestic tourism consumption, we obtain that tourism GDP would be reduced to 65,392 million euros and would have a weight in national GDP of 5.8%.

| Table 2. Impact of COVID19 on tourism GDP in 2020. |
|-----------------------------------------------|
| Millions of euros                             |
|                                                |
| Contribution to GDP                           | 147,946 | 65,392 |
| Tourism consumption Inbound tourism           | 79,891  | 27,962 |
| Domestic tourism consumption                   | 68,055  | 37,430 |

Source: SEGITTUR based on Spanish Tourism Satellite Account (INE) (A) advance and (*) estimated data.

As we have seen, the situation has caused a serious crisis, but also an opportunity for reflection on the type of tourist destination Spain wants to be in the post-pandemic future, based on the learning and experience of the professionals and managers of tourist destinations.

6. The Intelligent Tourism Destination (ITD) model

The ITD implements a pioneering methodology worldwide, which focuses on incorporating new technologies and innovation in work processes always at the service of the objectives of sustainability and accessibility in a model of efficient, transparent and participatory governance.

The Secretary of State of the Government of Spain has also worked on the creation of a homogeneous framework for the ITD project aligned with the process of creating smart cities, promoting a subcommittee for smart destinations in the Spanish Association for Standardization and Certification (AENOR). This work gave rise to the UNE 178501 Standard that regulates the Management System of Smart Tourist Destinations: Requirements and the Standard UNE 178502 Indicators and tools for smart destinations.

Spain’s competitiveness and leadership in tourism policy is strengthened thanks to this project, as evidenced by the interest aroused in international organizations such as the UNWTO, which holds the annual UNWTO World Conference on Smart Destinations[^8]. SEGITTUR has also participated in the revision of the sectoral framework of the Inter-American Development Bank (IDB [https://www.iadb.org/en]), which has included a reference to the Smart Destinations model. For its part, the European Commission has created a recognition, the European Capital of Smart Tourism, with the aim of rewarding the development of smart tourism in European cities based on the ITD model, highlighting good practices in innovative, inclusive and sustainable tourism.

A ITD, as stated in the White Paper on Smart Destinations, published by SEGITTUR in 2015[^9], is an innovative tourist destination, consolidated on a state-of-the-art technological infrastructure, that guarantees the sustainable development of the tourist territory, that promotes accessibility for all, that facilitates the interaction and integration of the visitor with the environment and increases the quality of their experience in the destination and improves the quality of life of the residents.

The definition encompasses the 5 pillars on which an ITD is based: Innovation, Technology, Sustainability, accessibility and Governance, the foundations for the development strategy that guarantees competitiveness through a process of continuous improvement. A management model that also considers the cross-cutting nature of tourism activity and the differentiating characteristics of each destination.
The application of this methodology means for the destination:

An increase in competitiveness, thanks to the better use of its tourism resources and the identification and creation of others.

An improvement in the efficiency of production and marketing processes.

A boost to the sustainable development of the destination in its 3 aspects: Environmental, socio-economic and sociocultural.

An improvement in the quality of stay of visitors and the quality of life of residents.

To make the tourism strategy the basis for the economic dynamization of the territory, guaranteeing its positive effects in the long term.

In order to maximize all these benefits through synergies between destinations and knowledge transfer, the Network of Intelligent Tourism Destinations (ITD Network [https://www.destinosinteligentes.es/]) was created on February 27, 2009.

The ITD Network aims to promote a new reference framework to consolidate the competitiveness of the Spanish tourism model. The ITD Network currently has 148 members (89 are destinations, 24 are institutional members and 35 are collaborating companies).

The ITD Network enables destinations to cooperate in a common space through strategic alliances among themselves, and also with the private sector, with access to a portfolio of services and solutions from the private and public sector that facilitate their conversion and continuity in the process, such as training and capacity building, access to databases of grants, subsidies and financing, technological solutions and international visibility, among others.

The ITD Network is a tool for coordination, cooperation and reflection that guarantees the value of the project and its effects on the development of the tourism sector and the territories in which it is applied.

The ITD methodology understands the conversion of a destination into a smart destination by its
capacity to remain in a continuous process of planning and adaptation to the new scenarios it faces, guaranteeing competitiveness and following a strategy based on sustainability as its main objective.

7. Tourism recovery supported by the ITDs

Last May 20, 2020, the Spanish Minister of Tourism, Reyes Maroto, stated: “Smart Tourism Destinations will be key to the relaunch of tourism in our country”\textsuperscript{[10]}. And on June 1st, 2020, His Majesty King Felipe VI expressed his support to the ITD Network as a pillar in the tourism recovery, chairing the plenary commission of this network\textsuperscript{[11]}. That is, the model of Smart Tourism Destinations (ITD) and the ITD Network are an asset in the recovery, because they have made Spain a competitive and sustainable destination, to face the new paradigm putting in value the model, knowledge, innovation and tourism sustainability, by working in the destinations on the one hand transversally in the management of the destination following an action plan for tourism intelligence and recovery from the COVID-19, and on the other hand working with other national destinations in a network, to create synergies and economies of scale among them all.

The keys to tourism governance, strategic planning, communication, coordination, transparency and cooperation are also the guidelines that should contribute to managing the situation resulting from the COVID-19 crisis in the destinations. Reliable, consensual and coordinated management tools and responses, adapted to a volatile environment, are needed to ensure security and confidence and thus bring about tourism recovery. It is necessary to work as a team and in a coordinated manner and the ITD model is the basis of this response, it is the pillar of the recovery of the Spanish tourism sector.

The Spanish Minister of Tourism highlighted the importance of the municipalities in promoting and guaranteeing intelligent and safe tourism, hence the key role of the ITD Network, which brings together the destinations in order to achieve these objectives.

The main actions carried out by the ITD Network before the COVID-19 are the improvement and adaptation of the methodology of diagnosis of Smart Tourism Destinations and the recommendations of the Action Plan, with the aim of incorporating issues related to the current situation, such as future communication actions, repositioning in markets or support for employment and the productive fabric. A training and capacity-building plan is also being designed for its members, focusing on digital tools, hygiene issues, segment analysis and analytical skills, which will enable them to strengthen their capabilities in the post-COVID-19 environment. The “ITD COVID-19 Network” channel has been created in Padlet (https://padlet.com/carlosromero-dexeus/nwie9cuzh4j8) to share information and best practices, organized multiple webinars and tutorials, as well as a weekly newsletter for the transfer and exchange of knowledge among Network members, among other actions.

The ITD Network has designed and published a Guide for the reactivation of tourism in smart destinations before the COVID-19\textsuperscript{[12]}.

The guide reflects the commitment to knowledge and Tourism Intelligence Systems, key requirements considered in the methodology of Smart Tourism Destinations and that will be fundamental in decision making in the Governance of destinations.

8. Conclusions

This model must be adapted to the COVID-19 context, and must also do so to the post-pandemic context in order to respond to the recovery based on these 5 axes of action (Governance, Innovation, Technology, Sustainability and Accessibility), using the competitive advantages acquired, internalizing the 17 Sustainable Development Goals of the United
Nations 2030 Agenda, adapted to tourism by the Arona Memorandum\cite{13} and placing value on tourism intelligence and networking.

The final conclusion is that a firm, consolidated and clear commitment must be made to the ITD model and Sustainable Tourism to mitigate the effects of the crisis, where carrying capacity, capacity, circular economy, efficient use of resources, the fight against climate change, the conservation of biodiversity, the promotion of culture, sustainable mobility and accessibility, the revival of the local economy, support for businesses, local producers and tourism companies... are the levers of change. And for this, the ITD and the ITD Network play an essential role, being the way in which the destinations that make up the Spanish tourism brand work together as a team, with tools such as technological digitization and innovation to achieve the objective of the resurgence of a new, more sustainable, accessible and competitive tourism sector, and therefore more intelligent.

**Conflict of interest**

The authors declare no conflict of interest.

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