

Knowledge Management for Smart Tourism: an exploratory survey in Abruzzo region

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Abstract: Research on Knowledge Management has seen a growing interest in Smart Tourism in recent years due to the need of effectively managing knowledge for sustainable and digital tourism competitiveness. In this sense, literature simultaneously suggests open data as the *black gold* of the new millennium, and the *missed link* for the smartness of tourism destinations. Nonetheless, in contrast to the global trend of leading countries to Tourism 4.0, Italy has been experiencing a weak tourist dynamism, witnessed by the eighth place in the report on the "Travel & Tourism Competitiveness Index" (WEF, 2020) achieved in the face of a predominant share of the worldwide cultural heritage located in its territory. Therefore, based on these premises we intend to provide an academic contribution to fill the literature gap on Knowledge Management in the context of Smart Tourism, highlighting how much the sharing information systems among stakeholders can promote the emergence of a virtuous collaborative *intertwining* between public and private tourist actors. The present case study concerns the planning and implementation of a tourist digital platform by the Abruzzo Region (Italy), according to the principles of Smart Governance, as one of the first practical reactions to the Italian lack of a widespread digital transition. Thus, this work aims to exploit the information previously collected through surveys administered by the managers of the Abruzzo Offices for "Information and Tourist Reception". This is regarding Knowledge Management structural limits and added value, in order to analyze Smart Tourism benefits and to provide future research agenda about regional tourism competitiveness.

Keywords: Knowledge Management, Open Data, Smart Governance, Smart Tourism, Tourism Competitiveness

1. Introduction

Knowledge has become one of the most relevant intangible assets for organisations to achieve long-term advantage in the current turbulent competitive environment (Nevis et al., 1995; Hicks et al., 2007). Knowledge Management (KM from now on) is mostly meant by literature as an important competitive lever with a view to a *smart* tourism transition (Dameri & Rosenthal, 2014; Del Chiappa & Baggio, 2015). In this context, in the recent decades *data* has been more and more widely considered the "black gold" of the new millennium. Managing with this wealth of knowledge generally entails to deal with *open data*, tackling the openness of governments and public administrations (Coglianese, 2009).

Therefore, the purpose of the present work is to analyze the evolution towards *open governance* in its operational declination in the Italian tourism sector. Indeed, Italy has been experiencing a weak tourist dynamism, witnessed by the eighth place in the report on the "Travel & Tourism Competitiveness Index" (Calderwood & Soshkin, 2019) achieved in the face of a predominant share of the worldwide cultural heritage located in its territory. In this context, the choice for focusing on the Abruzzo region experience depends mainly onto two reasons: firstly, in 2017 it was one of the very practical reactions to the Italian lack of a widespread digital transition (Vial, 2019). Secondly, the ITR offices represent a concrete response to the need for a dialogic approach in the context of the improvement of integrated, multi-professional and tourism-centered services, as previously explored following the present theoretical framework (Doolin et al., 2002; Tovar & Lockwood, 2008; Dimitrovski et al., 2012).

In particular, the ITRs are offices for "Information and Tourist Reception". The present case study evaluates the impact of the Destination Management System (DMS) introduction and dissemination in all 33 tourist operational units of the main Abruzzo localities.

This involves both the managers and the top coordination figures in the local reference bodies, comparing then the results with the tourism directors' opinions at the provincial and regional level.

DMS is the digital platform designed to allow 33 important tourist resorts in Abruzzo to interact among them, integrating information between the coastal and the internal areas (Presenza, 2008). In fact, this work aims to be the first attempt in mapping the level of knowledge transfer and tourism competitiveness on a regional scale (Pesce et al., 2019; Shafiee et al., 2019). Thus, the research questions at the basis of the present investigation are the following:

1. How is considered the Knowledge Management literature within Tourism Management context?
2. What is the impact that DMS introduction and dissemination had had on the Abruzzo tourism competitiveness?

The relative answers, reported in Section 4 of the present work, could inform academics and practitioners about the state of the art of this *open* KM case study, which are also discussed in Section 5, in order to trace the trajectories and to establish a future agenda within this line of research. Sections 2 and Section 3 describe respectively the theoretical background and the methodologies used.

2. Theoretical Background

Firstly, an important premise must be explained about a recurring feature alongside the word ‘tourism’ throughout the whole project: the concept of *smartness*. The reference point in the literature on *smart cities* (Al Nuaimi et al., 2015; Kousis & Tjortjis, 2021) is represented by the “terminology analysis” reported by Dameri & Rosenthal (2014).

The meaning clarification of the lexical item serves to avoid misunderstanding, since the concept of *smart city* is often confused with the one of *digital city*. The first refers to a well-defined geographical area, where high technologies -such as ICT- cooperate to create benefits for citizenships, in terms of well-being, inclusion, participation and environmental quality. The government is driven by a group of subjects, who state rules and policy for the development of the city (Caragliu et al., 2011; Dameri, 2013). The latter, instead, is defined as an open, complex, and adaptive system based on computer network and urban information resources, which forms a virtual digital space for a city (Shao-fu et al., 2001; Yovanof et al., 2009). Therefore, according to the digital perspective, the role of people or citizens is less proactive, and the idea of improving the citizenship quality of life is not explicitly set. Otherwise, the *smartness* emerges when the ICT plays a pivotal role, but it is still closely related with other aspects, such as cooperation, inclusion, and participation (Dameri & Rosenthal, 2014). The *smartness* of the Abruzzo Region DMS, subject of the case study, lies in these aspects, and it depends on how much the sharing of information systems among the various stakeholders can promote the emergence of a virtuous collaborative intertwining between public and private tourist actors (Boes et al., 2016).

Moreover, from a theoretical point of view, this work focuses on the insights deriving from Knowledge Management (KM) research line applied to Tourism Management (TM), in order to evolve it towards the so-called “Smart Tourism” (Buhalis & Amaranggana, 2013; Li et al., 2017). Hence, literature is based on a fundamental assumption, according to which the smart tourism destination should be specially designed and managed to encourage the *growth of knowledge* (Edvinsson, 2006; Roche & Rajabifard, 2012). However, in the literature, the concept of tourism destination has evolved only in recent time towards a *smart* perspective, as shown in the Table 1 here below (Shafiee et al., 2019; Habeeb & Weli, 2020), concerning the efficient knowledge sharing and the reduction of information asymmetries between the various stakeholders (Gretzel et al., 2015).

Table 1: Evolution of tourism destination definition (Adaptation from Jovicic, 2019)

Traditional Tourism Destination Concept	Systemic Approach to Tourism Destination	Smart Tourism Destination
It includes the gathering of places and services of interest, the lack of cooperation in destination and the role of tourists in destination.	It involves the interaction among tourists, service providers and local people in destination; continuous contact with the macro-environment and links between stakeholders are first mentioned within this approach.	Combining digital and real fields, public private consumer cooperation, government involvement, efficient knowledge sharing, value creation and personalized services are among the characteristics of smart destinations

Thus, the case study focuses on the DMS introduction and dissemination in the Abruzzo Region to analyze the *growth of knowledge* in terms of interconnectivity and portability, which are two general drivers of value creation through open data. They are respectively defined as the capacity to connect data, leading to new insights formed, and to transfer digitized data from one operational context to another (Malgonde &

Bhattacharjee, 2014; Günther et al., 2017; Pesce et al., 2019). The DMS, in fact, is the digital platform that, through a central Data Base, integrates booking, Customer Relationship Management and Content Management systems, allowing 33 important Abruzzo tourist resorts. This is aimed at incorporating information between the coast and the internal areas (Presenza, 2008). The literature has extensively debated the topic, and the milestones of this contribution are grouped by research items, as shown in the following Table 2.

Table 2: Research items theoretical references

Research Items	References
1. Digitization, connectivity, and human capital	(Heeks, 2002), (Carter & Belanger, 2005), (Caio, 2014), (Vial, 2019), (Lombardi et al., 2020), (Faraj et al., 2021).
2. Transfer, sharing, and management of knowledge	(Kanter, 1999), (Reinhardt et al., 2001), (O'Leary, 2001), (Quintas, 2005) (Malgonde & Bhattacharjee, 2014), (Del Chiappa & Baggio, 2015), (Günther et al., 2017), (Liu et al., 2017) (Pesce et al., 2019).
3. Competitiveness of the tourist destination	(Dameri, & Rosenthal, 2014), (Gretzel et al., 2015), (Boes et al., 2016), (Tomor et al., 2019), (Shafiee et al., 2019), (Fernández et al., 2020), (Hamid et al., 2021).

In addition, it must be highlighted the link that merges KM and TM (Otowicz et al., 2022), and which constitutes the real added value in the mission to increase the tourist competitiveness. Literature has given to the concept of KM several definitions, which fit well in tourism organizations. For example, the *Outcome Perspective* (Kanter, 1999) analyzes how KM is used within an organization to gain competitive advantage and enhance innovation and success; while the *Intellectual Capital Perspective* (Reinhardt et al, 2001) describes KM as the systematic attempt to employ knowledge within an organization to transform its ability to improve performance. However, the definitions of KM that describe at the role of the DMS in a smart and competitive TM at its best, are provided by the *Information Technology Perspective* (O'Leary, 2001). It considers KM as the capture, access, and reuse of knowledge, using information technology to improve human performances; indeed, according to Liu et al. (2017), the KM is meant as the process capable of both managing tangible content, and getting information from the raw data available on organization.

DMS competitive advantage must be considered in a holistic sense, and not as a mere sum of the previous elements. Thus, interconnectivity and portability of the information exchanged between the Abruzzo ITR offices and the various stakeholders in that area can generate the enhancement of the tourism sector players performance and the significant improvement of the Abruzzo tourist competitiveness on a national and international scale (Tomor et al., 2019; Hamid et al., 2021).

3. Methods

Between October 2021 and February 2022, the research questionnaires were sent via email to all subjects involved in the process of managing the DMS platform designed by the Abruzzo Region, i.e. the managers of the ITR offices and the public top figures responsible for managing the tourism function of the following Abruzzo tourist resorts: Alba Adriatica (TE), Capestrano (AQ), Caramanico Terme (AQ), Chieti, Fossacesia (CH), Francavilla Al Mare (CH), Giulianova (TE), Lanciano (CH), L'Aquila, Loreto Aprutino (PE), Martinsicuro (TE), Massa D'albe (AQ), Montesilvano (PE), Navelli (AQ), Ortona (CH), Ovindoli (AQ)), Pescara, Pescasseroli (AQ), Pescocostanzo (AQ), Pineto (TE), Rivisondoli (AQ), Roccamorice (PE), Roccaraso (AQ), Roseto degli Abruzzi (TE), San Salvo (CH), Scanno (AQ), Silvi Marina (TE), Sulmona (AQ), Tagliacozzo (AQ), Teramo, Tortoreto (TE), Vasto (CH), Villetta Barrea (AQ). In summary, the locations involved were thirty-three, for sixty-six questionnaires sent and forty responses received. However, considering that 13 ITR offices have only seasonal opening, the response rate to the questionnaire is satisfactory, and exceeds 75% (40/53) of the subjects currently active in the area.

The methodology of the present study follows the approach used by Saris & Gallhofer (2014), focusing on the preliminary reflections required to design a survey regarding:

1. Choice of a Topic
2. Choice of the Most Important Variables
3. Choice of Data Collection Method
4. Choice of Operationalization
5. Test of the Quality of the Questionnaire
6. Formulation of the Final Questionnaire
7. Choice of Population and Sample Design.

Firstly, the *Choice of the Topic* immediately determines a very specific direction to follow. This direction led us to provide surveys for explanatory and non-experimental purposes, in order to determine the degree of adequacy, usefulness, and satisfaction perceived by the “Information and Tourist Reception” (ITR) managers of the main Abruzzo tourist resorts, and by the tourist decision-makers in the territorial administrations connected to them. In this regard, this case study aims to exploit the information previously collected through the surveys, to analyze Smart Tourism benefits and to provide future research agenda about regional tourism competitiveness. This objective was operationally achieved by investigating the Abruzzo tourism offer, from a Knowledge Management viewpoint according to the three main research items:

1. Digitization, connectivity, and human capital
2. Transfer, sharing, and management of knowledge
3. Competitiveness of the tourist destination.

Secondly, these aforementioned items (Table 2) constitute the *Most Important Variables* of the present research, and their identification was crucial to develop a preliminary model that indicates the relationships among the variables of interest. Thus, the relationships among the possible causes of the delay in the dissemination of better practices in the field of Smart Tourism had been firstly investigated along the digital and connectivity limits of the Abruzzo ITR offices, to verify the progress of the "Digital Transformation" (Vial, 2019) within the tourist information structures. Then, we have moved on, to attest the state of the art of knowledge transfer, sharing, and management process (Del Chiappa & Baggio, 2015) evaluating the perception of the synergistic effects which derives from the introduction of a DMS tool, given the competitiveness enhancement of the tourist destination (Fernández et al., 2020).

Thirdly, the *Choice of Data Collection Method* involve considerations related to costs, question formulation, and quality of data (Dillman, 2000). To complete effectively and efficiently the survey, we had decided to proceed towards web Surveys, which would have allowed the interviewees to respond quickly and easily by their smartphone or laptop to the nine set questions, in an estimated response time of two minutes. Then, the *Choice of Operationalization* concerns several decisions related to the subject and dimension for the evaluation of the research lines, the questions formulation, and the response categories. The *Formulation of the Final Questionnaire* phase is intended to ensure the interviewees' understanding of questions, providing details to clarify any potential doubts.

This whole process led to the creation of the final survey structure, set with nine closed- ended questions, measured using a Likert scale from 1 to 6. The reason was to identify a set of variables, assessing the impact of the introduction and dissemination of the DMS on the Abruzzo tourist offer and responding to the three research strands, set according to the Likert Scale (Joshi et al., 2015), as described below in the Table 3. The answers are, then, analyzed in Section 4 and compared for a broader understanding of the state of the DMS platform in Abruzzo. The opinions are collected in the 45 minutes semi-structured interviews, carried out in February 2022 by phone with the four main tourism coordination figures at the regional and provincial level.

Table 3: The Final Questionnaire

Question	Response Category	Strand of Research
1. How adequate do you think are the knowledge and digital skills of the employees of the ITR Office?	Likert Scale (Adequacy from 1 to 6).	Digitization, connectivity, and human capital.
2. How adequate do you think is the overall level of connectivity and digitization of the ITR Office?	Likert Scale (Adequacy from 1 to 6).	Digitization, connectivity, and human capital.
3. Given the amount of work required using the Destination MS, how much do you consider adequate from a quantitative point of view the human capital available to the ITR Office?	Likert Scale (Adequacy from 1 to 6).	Digitization, connectivity, and human capital.
4. How useful do you think the introduction and dissemination of the DMS have been to ensure a smarter more accessible sharing of information between the ITR Office and the tourist?	Likert Scale (Usefulness from 1 to 6).	Transfer, sharing and management of knowledge.

Question	Response Category	Strand of Research
5. How useful do you think the introduction and dissemination of the DMS have been to allow the individual ITR Office to create and offer tourist experiences with high added value?	Likert Scale (Usefulness from 1 to 6).	Competitiveness of the tourist destination.
6. How useful do you think the introduction and dissemination of the DMS have been for the development of an integrated local tourism offer with respect to the needs of private operators in the sector?	Likert Scale (Usefulness from 1 to 6).	Competitiveness of the tourist destination.
7. How satisfactory do you consider the transfer and sharing of information following the introduction and dissemination of the DMS?	Likert Scale (Satisfaction from 1 to 6).	Transfer, sharing and management of knowledge.
8. How satisfactory do you consider the management of the information assets of the ITR Office following the introduction and dissemination of the DMS?	Likert Scale (Satisfaction from 1 to 6).	Transfer, sharing and management of knowledge
9. How satisfactory do you consider the competitive advancement of the local tourist offer following the introduction and dissemination of the DMS?	Likert Scale (Satisfaction from 1 to 6).	Competitiveness of the tourist destination

Moreover, the *Test of the Quality of the Questionnaire* is a relevant moment in checking validity and control of the routing in the questionnaire, and it was estimated before and during the administration of the survey itself, to avoid any wrong direction or missed response. Finally, as regards the last step of the survey design, the *Choice of Population and Sample Design*, we had decided to investigate the effects of the introduction and diffusion of the DMS in the Abruzzo ITR subgroup, as one of the first practical reactions to the Italian lack of a widespread digital transition in the tourism field. The perceptions of this subgroup regarding the subject of the analysis were then investigated without further sampling: the questionnaire was sent via email to all thirty-three ITR managers of the main Abruzzo localities and to the public decision-makers to whom these structures refer.

4. Results

Firstly, the basic definition of KM within TM that emerges from this paper can be sum up as the capture, access, and reuse of knowledge using information technology to improve human performances (O'Leary, 2001), or as the process capable of both managing tangible content and getting information from raw data available in organization (Liu et al., 2017). Therefore, starting from this definition, are described the main characteristics of KM analyzed in this work in the tourism field, and within the DMS tool. We refer to the ability to improve human performances within an organization by *smartly* managing all the aspects related to the transfer and sharing of knowledge (Dameri & Rosenthal, 2014; Del Chiappa & Baggio, 2015). The concept of the sharing of knowledge is a key to the effectiveness of many tourism organisations (Hjalager, 2002), and in this sense DMS portability and interconnectivity potential constitute a high informative power, capable of generating the performance enhancement of the tourism sector players and the improvement of the Abruzzo tourist competitiveness (Tomor et al., 2019; Hamid et al., 2021).

Secondly, through the questionnaires, we tried to estimate the impact that the introduction and dissemination of the DMS has had on the Abruzzo tourism competitiveness. The statistical analysis is shown in the following Table 4.

Table 4: Surveys Statistical Analysis

Question	Strand of Research	Respondents	Invalid answers	Mean	Mode	Median	Standard deviation	Standard error
1	1	40	0	4,3/6	5	5	1,418	0,448
2	1	40	0	2,8/6	2	2,5	1,619	0,512
3	1	40	0	3,4/6	2	3	1,430	0,452
4	2	40	0	3,7/6	4	4	1,567	0,496
5	3	40	0	3,8/6	5	4,5	1,687	0,533
6	3	40	0	3,7/6	5	4	1,636	0,517
7	2	40	0	3,7/6	4	4	1,337	0,423
8	2	40	0	3,9/6	4	4	1,370	0,433
9	3	40	0	2,9/6	3	3	1,101	0,348

From this Table, it is immediately clear that the standard deviation (how the values differ from the average value) and the standard error (the reliability of the proportion, how much the calculated proportion approaches the true proportion of the population) are high enough for almost all questions. It is due to a strong asymmetry of data, and it indicates that the statistical units have very different values. In these cases, is recommended the use of the median as the statistical mean of reference (Leys et al., 2013; Wan et al., 2014).

In this sense, we proceed to comment on the results of the survey, following the order of the three research items, identified in the design phase. For the first strand of research (digitization, connectivity, and human capital) we have asymmetrical results. This shows the fact that the participants consider on the one hand "adequate" the knowledge and digital skills of the employees of the ITR Office, and on the other hand "inadequate" or "neither adequate nor inadequate" the human capital and the overall level of connectivity and digitization of the ITR Office (Heeks, 2002; Carter & Belanger, 2005; Vial, 2019).

However, for the second research line (transfer, sharing, and management of knowledge), we find a recurring median equal to 4/6, which means that the introduction and dissemination of the DMS were positively evaluated as "quite useful" for ensuring a more accessible and smart sharing of information between the ITR offices and the tourists. Furthermore, even the management, transfer, and the sharing of information of the ITR Office were ex-post evaluated as "quite satisfactory" (Malgonde & Bhattacharjee, 2014; Del Chiappa & Baggio, 2015).

Finally, for the third one (competitiveness of the tourist destination) we also have asymmetrical median value among the three different questions. Specifically, the introduction and dissemination of the DMS were rated "quite useful" and "very useful" to create a local tourism offer with high added value, and consistent with the needs of private operators in the sector. However, the state of the competitive advancement of the local tourist offer is still considered by the main players in the sector to be "neither satisfactory nor unsatisfactory" (Gretzel et al., 2015; Boes et al., 2016).

These results are partly confirmed by the opinions gathered through the semi-structured interviews that concerned the four main tourism coordination figures at the regional and provincial levels. At the provincial tourism management level, the introduction and dissemination of the DMS were evaluated more than positively. These experts believe "the switch in mind that occurred thanks to the DMS on the operation of the ITR offices is very useful and satisfactory, despite the missing of a widespread level of digitalization and the interconnectivity and portability level that should be further enhanced".

Still, this satisfaction analysis of the DMS in Abruzzo does not only report favorable judgments. At the regional level, the coordinators specify how one of the recurring problems of the ITRs is their seasonality, and the changes that are made year by year at the level of employees hired. This continuous turnover and the need to start from scratch every year with DMS training "considerably slow down the full implementation of the Abruzzo DMS and the creation of an integrated, continuous and competitive tourist offer". For this reason, the results of this analysis on the introduction and dissemination of the DMS in Abruzzo only partially reflect the parameters identified by the theoretical reference framework and highlight that the Abruzzo region cannot yet be considered a *smart tourism destination* (Shafiee et al., 2019; Habeeb & Weli, 2020). This is due to a level of digitalization, interconnectivity, and continuity of the human capital employed in the tourism sector not yet sufficient to guarantee the growth of knowledge (Edvinsson, 2006; Roche & Rajabifard, 2012), the enhancement of human performances by using information technology (O'Leary, 2001), and the progress of tourism competitiveness (Fernández et al., 2020).

5. Discussion and conclusions

The scientific debate on Knowledge Management and smart tourism destinations has been growing over the last decades. Although this contribution is based on a fundamental assumption that the smart tourism destination should be specially designed and managed to encourage the growth of knowledge (Edvinsson, 2006; Roche & Rajabifard, 2012), the investigation defines how smart tourism destination works are still in progress. This is particularly clear when the process of knowledge transfer is analyzed and described in the state of the art of KM literature, within the TM in response to the project's RQ1 (Shaw & Williams, 2009).

The need for growth of knowledge highlighted by the theoretical framework was also confirmed within this case study. Moreover, in the semi-structured interviews released in the past months, the regional managers specified

that the main obstacle for the tourism competitiveness enhancement lies precisely in the difficulties of knowledge transfer at the level of ITR offices, related to the continuous turnover from part of the employees. Thus, unlike the hypothesis in the preliminary stages of the research project, from the empirical analysis emerges that the delay in terms of smart tourism and competitiveness by the Abruzzo Region largely depends on an inefficient transfer of knowledge by human capital at the ITR level (Del Chiappa & Baggio, 2015; Günther et al., 2017).

Furthermore, the following Figure 1 shows the trend of tourist presences 2010-2021 in the Abruzzo Region compared with the Italian average.

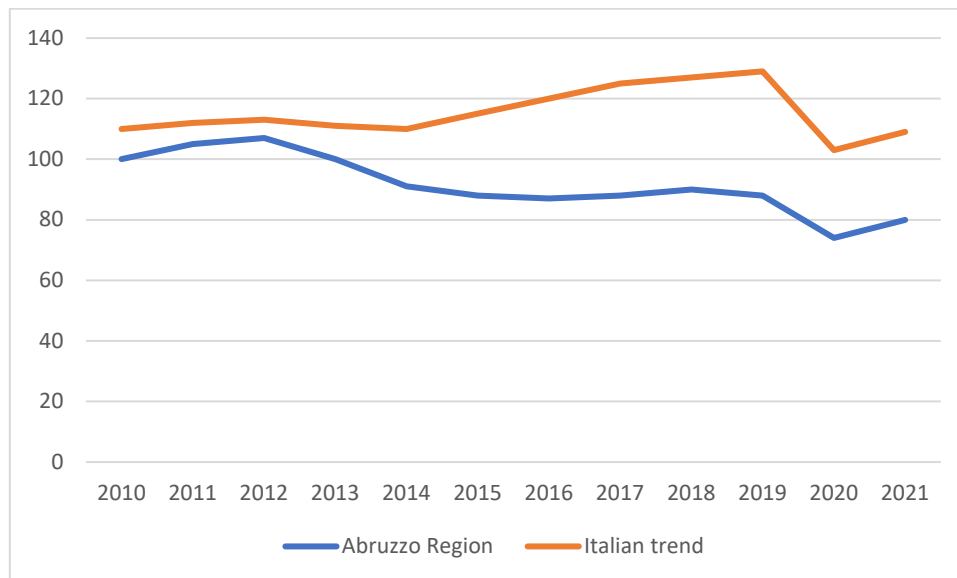


Figure 1: Tourist presences in the Italian districts and in Abruzzo- adaptation from ISTAT data (2021)

As it can be seen from the graph, the access to national and regional tourist facilities saw a marked decline between 2013 and 2014. The spread of the DMS is chronologically linked to the phase of recession in the tourism sector, and to the need for redrawing its boundaries. In Abruzzo, the DMS platform introduced in 2017 had not been able to limit the collapse in tourist numbers due to the pandemics. Then, so far, the regional tourism executives detect a modest level of satisfaction regarding this kind of innovation in regional tourism competitiveness. Satisfaction is flanked by the belief that there is a need for continuous training of tourist players, in order to make Abruzzo a smart tourism destination, demonstrated by the frequent DMS-themed training activities organized for ITR employees in recent months.

In conclusion, to provide an answer to RQ2, we noted that the impact produced by the introduction and dissemination of the DMS on the Abruzzo tourism competitiveness was modest, certainly not enough for a *smart tourism* transition (Shafiee et al., 2019; Habeeb & Weli, 2020). The current process of the sharing information among tourism actors is not encouraging the *growth of knowledge* (Edvinsson, 2006; Roche & Rajabifard, 2012). Even the interviewees, in spite of an average high level of satisfaction, admit that the continuous turnover at the level of ITR offices undermines the full use of the DMS, and the consequent growth of the Abruzzo tourist offer.

In this sense, the challenges faced by the Abruzzo tourism managers are in line with those identified by Gretzel et al. (2015), who outlined a research agenda for smart tourism regarding innovation capacity, human resources implications, coordination mechanisms, infrastructure requirements, and information governance. Furthermore, the latter topic described in the present work shows a clear need to improve the transfer and the sharing of information among the players in the Abruzzo tourism sector, to boost the transition from mere *open governance* (Coglianese, 2009) to *smart governance* (Gretzel, 2018) and to enhance the tourism competitiveness (Fernández et al., 2020).

Lastly, this study goes through some further limitations and strengths. Firstly, according to Gretzel et al. (2015), research in the smart tourism area is usually limited to case studies of existing projects and focused on the

consumer perspective with a very optimistic and uncritical approach. Even though this work is based on a project launched in 2017, it uses a critical approach for the analysis conducted from the point of view of decision-makers at the various hierarchical levels of the Abruzzo tourism sector. Secondly, part of the literature considers the research on the regional case study to be of little interest, but here, a first complete mapping of the progress of the Abruzzo DMS has been outlined as one of the first practical reactions on a regional scale to the Italian lack of a widespread digital transition (Vial, 2019).

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