Knowledge and synergy as drivers of regional innovation in tourism: the case of the Tourism Observatory of the Federal District, Brazil

Conhecimento e sinergia como indutores da inovação regional em turismo: o caso do Observatório do Turismo no Distrito Federal (Brasil)

El conocimiento y la sinergia como inductores de la innovación regional en el turismo: el caso del Observatorio de turismo en el Distrito Federal (Brasil)

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Abstract: *Tourism is the place for innovation. The reason for this pragmatic sentence comes from the multiplicity of competitive scenarios that contextualize companies and tourism destinations. From the current paradigms of competitiveness, satisfaction and loyalty of tourists, and the offer of value experiences, it is noticed a panoply of innovations that perform a strategic role on managing tourism destinations. In this sense, this article aims to conduct a discussion about regional innovation on tourism with emphasis on synergy and shared knowledge among stakeholders involved with tourism activities. The methodology employed consists of literature review about innovation in tourism and regional innovation in tourism and it is also used the qualitative research approach at a case study which addresses the implementation of the Tourism Observatory of the Federal District (Brazil), as practice-based governance in that region. The results show that the participation of public sector and educational institutions, as well as the cooperation between stakeholders involved within this governance*

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design, were key drivers for creating an innovative platform for the tourism management at the desti-
nation.

Keywords: Tourism. Regional Innovation. Knowledge. Synergy. Observatory. Federal District.

Resumo: O turismo é o lugar da inovação. A razão desta frase pragmática tem origem na multiplici-
dade de cenários competitivos que contextualizam empresas e destinos turísticos. A partir dos atuais
paradigmas da competitividade, da satisfação e fidelização dos turistas e da oferta de experiências de
valor, observa-se uma panóplia de inovações as quais desempenham um papel estratégico na gestão
de destinos turísticos. Neste domínio, este artigo tem como objetivo realizar uma discussão sobre o
tema inovação territorial em turismo com ênfase na troca de conhecimento e sinergia entre os envol-
vidos pela atividade turística. A metodologia utilizada consistiu na realização de uma análise da litera-
tura sobre os temas inovação em turismo e inovação regional em turismo, utilizando, também, a abor-
dagem qualitativa do estudo de caso acerca da implementação do Observatório do Turismo no Distrito
Federal (Brasil) como prática de governança nesta região. Os resultados mostram que a participação
do poder público e de instituições de ensino, além da cooperação entre os demais envolvidos por este
desenho de governança, foram fatores chaves para a criação de uma plataforma inovadora para a
gestão do turismo no destino.

Palavras-chave: Turismo. Inovação Regional. Conhecimento. Sinergia. Observatório. Distrito Federal.

Resumen: *El turismo es el lugar de la innovación. La razón de esta frase pragmática viene de la multi-
tud de escenarios competitivos que contextualizan las empresas y destinos turísticos. A partir de los
paradigmas actuales de la competitividad, la satisfacción y la lealtad de los turistas y la oferta de ex-
periencias de valor, hay una serie de innovaciones que desempeñan un papel estratégico en la gestión
de los destinos turísticos. En este sentido, este artículo tiene como objetivo realizar una discusión de la
innovación regional en el turismo con énfasis en el intercambio de conocimientos y la sinergia entre
las partes interesadas para el turismo. La metodología utilizada consistió en una revisión de la litera-
tura sobre la innovación en el turismo y los temas de innovación regional en el turismo, utilizando
también la abordaje cualitativa de estudio de caso que se dirigió a la implementación del Observatorio
de Turismo en el Distrito Federal (Brasil) como una práctica de gobernanza en esta región. Los resulta-
dos muestran que la participación de las instituciones públicas y educativas, además de la cooperación
entre los implicados en este diseño de gobernanza, fueron factores clave para la creación de una pla-
taforma innovadora para la gestión del turismo en el destino.*

Palavras-clave: *Turismo. Innovación Territorial. Conocimiento. Sinergia. Observatorio. Distrito Federal*.

1 INTRODUCTION

Innovation in tourism is a pressing
and cross-dimensional issue, affecting its va-
rious extents. Product or service, process,
managerial and market innovations consti-
tute the main body of innovation categories
(Hjalager, 2010). Thus, innovation in tourism

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generates new tourism consumer profiles, new trends and designs on offer, new models of management and distribution of tourism products.

In the globalized world countless travel destination options are at the disposal of the tourists (Halkier, Kozak, & Svensson, 2014). Thus, it is not surprising that, given the growing competitiveness in the market of leisure and business travel, destinations have been emphasizing innovation in tourism services and experiences (Hall & Williams, 2008; Hjalager, 2010). The complex relationship between tourism and the regional government organizations contributes to a multitude of intertwined connections encompassing the different tourism stakeholders, from which the transmission and consolidation of knowledge become possible (Albernath & Clark, 1985, Gibbons, 1994; Cooke, Uranga, & Etxebarria, 1997), paving the way for innovation.

Within the systemic approach tourism is considered a system formed by the set of (i) environmental relationships and their ecological, social, economic and cultural subsystems; (ii) structural organizations and the infrastructure and superstructure subsystems; (iii) operational actions, encompassing the market, supply, demand, production, distribution and consumption (Beni, 2001). There is an increasing number of studies on the cooperative action in tourism drawing on the foundations, dimensions and concepts of regional innovation. Similarly, this holistic model of structural analysis of tourism can be envisaged as a metaphorical approach of the digital business ecosystem (Alves, Vabo Junior, Vaz, & Solomon, 2009), which is charac-

terized by an intelligent system supported by open, flexible and interactive networks established in collaborative environments (Gretzel, Werthner, Koo, & Lamsfus, 2015).

The formation, identification, construction and implementation of clusters or ecosystems entangled by the regional dimension of tourism comply, in most cases, to the public policies undertaken with such purposes. The public sector is often a key stakeholder and driver in tourism innovation systems, contributing, among others, for the development of strategic capacity, infrastructures, research-based knowledge, legal frameworks, and skill enhancement facilities (Hjalager, 2010).

This paper highlights a case study wherein we analyze the relevance of public authorities, educational institutions and research centres, as well as other agents related to tourism, in coordinating the dialogue and transfer of knowledge to increase the innovative capacity in its regional dimension. First we present the methodology of this study, followed by discussion on innovation in tourism and presentation of the case study of the *Observatório de Turismo do Distrito Federal* (OTDF) (Tourism Observatory of the Federal District). Finally, we outline the major findings of this experience.

2 METHODOLOGY

In order to contribute to the theoretical discussion proposed in this paper, we conducted a literature review during June 2015 with references retrieved mostly from SCOPUS database. Initially, the search was made using the combination of the words "tou-

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rism" + "innovation" and "regional" + "innovation" + "tourism" from which 17 scientific papers were found from 1985 to 2015. The selection criteria was based on the content analysis of the abstracts or, if necessary, the full text. We also collected papers based on the significance of the records in citations by other authors.

These papers are published in the following academic journals: *Research Policy* (2); *Tourism Management* (2); *Annals of Tourism Research* (2); *Journal of Sustainable Tourism* (1); *Journal of Destination Marketing & Management* (1); *Current Issues in Tourism* (1)*; Journal of Quality Assurance in Hospitality & Tourism* (1); *Scandinavian Journal of Hospitality and Tourism* (1)*; Journal of Travel Research* (1); *European Planning Studies* (1); *The Services Industries Journal* (1); *Tourism Geographies* (1); *Progress in Human Geography* (1); *Computers for Human Behavior* (1)*.

We added other works such as: (i) doctoral thesis, thus presenting the results of applied research and the state of the art on the topic; (ii) books; (iii) chapters of books containing articles from authors researching the relation between innovation and tourism; (iv) papers published in the annals of scientific events. Table 1 presents an overview of the main topics discussed in this literature review.

In order to complement the discussions referred to in the literature, the methodology adopted was the qualitative descriptive case study, addressing the implementation of participatory tourism management in the destination Federal District (Brazil). The case study is characterized as a research strategy whose object is a specific unit or limited system that is analyzed in depth (Hollinshead, 2004). The descriptions resulted from the authors' participation and direct observation of the implementation of the Tourism Observatory of the Federal District from 2009 to 2014. It was a process which arose from the Ministry of Tourism Project "65 Tourism-inducing Destinations", in which a Tourism Management Group formed by public and private sector came out with a matrix of needs (from the GUT methodology – Gravity / Urgency / Trend) to generate a plan for the development of tourism in the Federal District.

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Table 1 - Summary of topics and authors discussed in the literature review

Topics	Authors
Innovation, production, and transference of knowledge	*Scott and Laws (2006)* address the social perspective of knowledge transfer, identifying relationships of power and control in destinations by tour operators; *Gibbons (1994)* argues that governments must act as facilitators of the knowledge production processes, improving the permeability between institutions; *Cooke et al.* (1997) conclude that learning represents a strategic element for regional innovation systems and they argue for the strengthening of regional capacity to promote systemic learning and interactive innovation. *Hjalager (2010)* argues that when tourism organizations engage in collaborative structures, their performance and capacity for innovation increase considerably. In tourism, the knowledge is transferred through four systemic levels: (i) trade, (ii) technological; (iii) infrastructural (represented by public bodies); (iv) regulatory.
The use of innovation in tourism	*Hjalager (2010)* indicates that innovation in tourism can be placed in the following categories: *product or service*, refer to changes observed by the customer; *process,* which entails new flows of action aiming to promote efficiency and productivity, extensively using Information and Communication Technology (ICT); *managerial innovation*, within the scope of leadership and people management, improving the workplace, retaining talent, and encouraging the dissemination of knowledge; *management innovation*, concerning innovation in the relationship marketing between businesses and consumers. *Aldebert et al. (2011)* point out that innovations in tourism have application in the development of new services, in tourism companies' processes and in tourism marketing, in the tourism distribution channels.
The use of technology in tourism	*Buhalis and O`Connor (2006)* highlight the Internet as the mode for disseminating tourism e-commerce and the use of interactive technologies of social media which influence the consumption behavior of tourists, with impact in the co-creation of value and e-WOM (electronic Word of Mouth). *Hjalager (2013)* posits that smartphones and GPS have improved the tourists' mobility and that social media facilitate the exchange of information between tourists.
Smart tourism destinations	*Wang et al. (2013)* carried out an empirical study in 33 cities in China and concluded that smart tourism destinations, besides offering "cloud services" and "Internet of Things", should use digital technologies to co-create the tourism experience in the destination. *Minazzi (2015)* underline the importance of the online ubiquitous connectivity of smart destinations since smartphones provide different types of services which can enrich the tourism experience, particularly in terms of location-based apps, guides, and leisure services sharing.
Regional innovation in tourism	*Cooke et al*. (1997) have identified the key dimensions in a regional innovation system in order to operationalize the concept. *Brandão (2014)* highlights the relevance of training and knowledge for regional innovation systems, wherein knowledge transfer can be originated both in formal or informal networks. *Carson et al*. (2014) point out some existing barriers in the engagement of local systems of tourism in regional innovation processes, such as the culture of isolation, issues related to the use of knowledge transfer, resistance to interaction.

Source: The authors

3 INNOVATION AND TOURISM

Innovation in tourism has implications on the competitiveness of companies and destinations, the cooperation and production of knowledge, the satisfaction of needs and wants of tourists, the sustainable management of tourism resources, the global connectivity of destinations, in gover-

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nance, management and marketing of destinations and companies involved in the production of tourism activity. Innovations also affect technology, economic performance, entrepreneurship, the role of the State, and the territorial base (Hall & Williams, 2008).

The concept of innovation cuts across the notion of social and collective process, (Aldebert, Dang, & Longhi, 2011) and involves the production and dissemination of knowledge. In this sense, innovation can be defined as the generation, acceptance and implementation of new ideas, processes, products or services (Kanters, 1983, cit in Hall & Williams, 2008). The novelty is a core concept for innovation, however, often, we sought to understand its nature, characteristics and sources in order to settle different interpretations, problems and ambiguities.

According to Williams and Shaw (2011), in Schumpeter's perspective the novelty was conceived as an essential aspect of innovation, and it could take different forms, such as the creation of new products, development of new forms of production, opening of new markets, or new organizational structures. Thus, classically, the innovation was studied and analyzed from the point of view of production of new tangible assets and patents (Williams & Shaw, 2011). However, since 1980s, innovation in the service sector, including tourism, has drawn the attention of researchers (Hjalager, 2010).

Innovations can be disruptive, improve products and services, or even destroy or render obsolete consolidated skills (Albernath & Clark, 1985). Lemos (1999) describes two types of innovation : (i) the *radical* innovation, which leads to a structural change in the existing technology standards, impacting the organizational processes and the behavior of consumers, creating new industries, products, and markets; (ii) the *incremental* innovation, which is responsible for the improvement in the products or processes, without changes in the industrial structure. Chang, Go and Pine (1998) identified also a third type, called *distinctive* innovation that requests adjustments in consumer behavior and organizational processes.

In turn, Hjalager (2010), for analytical purposes, indicates that innovations in tourism can be placed in the following categories: (i) *products and services*, which have an impact on observable changes by customers; (ii) *processes*, involving new flows of actions aiming to promote efficiency and productivity, making extensive use of information and communication technologies (ICT); (iii) *managerial innovations*, within the scope of leadership and people management, the improvement of workplaces, retaining talent and encouraging the dissemination of knowledge; (iv) *management innovations*, related to innovations in relationship marketing between companies and consumers; (v) *institutional innovations*, which correspond to organizational structures that efficiently redirect or enhance the tourism business within business and territorial networks and alliances.

Studies conducted by Aldebert et al. (2011) posit that the innovations in tourism focus largely on the development of new services, and there are also innovations in processes and marketing. A similar conclusion was reached by Brandão (2014), in which the most significant purposes towards innova-

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tion in tourism are the exchange of knowledge, development of new products and marketing strategies.

The innovations related to the Internet reshaped the structure of the tourism industry, the nature of the tourism products and experiences, the competitiveness and the process of creating value in tourism (Sigala, 2014). Advances in technology have enabled the diffusion of e-commerce and, thus, the online purchase of airline tickets and hotel reservations, in addition to the spread of social media and their impact on the co-creation of value and on electronic Word-of-Mouth (e-WOM)[4]. Buhalis and O'Connor (2006) pointed out the convenience to experienced and exigent costumers with the possibility to create their travels according to specific preferences consumers, the business integration with the credit card and financial networks and cost reduction policies on the part of suppliers of tourist services, as the reasons for online sales expansion of tourism services.

Innovations in tourism also enables: (i) the increase of productivity and efficiency of tourism companies; (ii) the improvement of tourists' mobility due to the use of smartphones and Global Position Systems (GPS's) in the destinations; (iii) the exchange of information between organizations; (iv) the formation of new destinations; (v) the supply of equipment that offer comfort to tourists (Hjalager, 2013). There are, also, impacts on tourist consumer behavior, insofar

as the Internet offers increased confidence in decision-making and post-consumption evaluations, with important inputs to marketing. We also point out the importance of social media, whose innovative aspects are reshaping the marketing practices of destinations (Hjalager, 2010). The theories and examples mentioned highlights the potential of innovation in tourism to sell and generate business. In this context, technology is seen as a solution to create value and new services in tourism. Technology brings closer the dissemination and sharing of knowledge, building the so called "information society" (Castells, 2007).

Technological innovations are on the basis of the dissemination of tourism, particularly, those associated with communication and transport systems; among these, innovations such as the railroad, automobile, and air transport changed the course of tourism (Hjalager, 2013) and society itself. The information and communication technologies (ICT) continue to innovate in the context of the destinations with impacts on (i) the tourism experience; (ii) the construction of intelligent and dynamic databases; (iii) marketing; (iv) communication strategies between tourists and the Destination Marketing Organizations (DMO) and between tourists (e-WOM); (v) competitiveness of destinations (Hjalager, 2013). Thus, it emerges the notion of Smart Tourism Destination (STD), which consists of platforms to support information related to tourists` activities, the consumption of tou-

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[4] Electronic Word of Mouth (e-WOM) is the term used in the academic literature (Luo & Zhong, 2015; Litvin, Goldsmith, & Pan, 2008) to describe the active engagement of consumers in recommendation, evaluation of products and services in online environments. Tourists' reviews on reservation websites are e-WOM examples.

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rism products and the status of tourism resources that can be integrated and made available instantly to other tourists, businesses and organizations across a variety of applications (Wang, Li, & Li, 2013).

The STDs emphasize the connectivity and interactivity, considered trademarks of the future Web 3.0 (Minazzi, 2015), facilitating the tourists' mobility in the destination and receiving and passing on information about the use of tourism services. The backstage of the STDs uses Cloud Computing[5], the Internet of Things[6] and End-User Internet Service System[7] to create competitive advantage for the destinations (Wang et al., 2013). The access to such technologies is still limited with respect to the inclusion of all tourism stakeholders in destinations. However, ICTs-based crowdfunding platforms enable the realization of tourism projects supporting communities secluded of the expertise to develop a collective fund raising campaign, or could not access another type of financing for their projects (Cezário & Pena, 2016). Crowdfunding, including for tourism purposes, transforms the network cooperations when it promotes collaboration in solidarity between consumers and grassroots organizations in a joint growth, contrary to the logic of capitalism as it promotes the well-being of all its members (Mance, 2002, cit in Cezário, Pena, 2016). In this context, innovation has direct implications on competitiveness and on the development of tourism destinations and the next item will discuss the role of innovation in tourism regions.

3.1 Regional innovation in tourism

Network collaboration and a behavior that promotes the exchange of knowledge among those involved with tourism activities have been the subject of research and analysis within the framework of the relationship between innovation, tourism, and region. Learning and knowledge are strategic elements in any innovation process (Cooke et al., 1997; Brandão, 2014). Thus, Abernath and Clark (1985) recognize that "innovation is derived from advances in science and its introduction makes existing knowledge in that application obsolete" (p. 6-7). On the other hand, while Abernath and Clark (1985) associate innovation as derived from the scientific advancement and, in this way, based on explicit formal and systematic knowledge, Scott and Laws (2006) recognize the existence of tacit knowledge, which is rooted in the action and produced informally, as generator of new forms of innovation.

Gibbons (1994) explains that the tacit knowledge comes from a variety of sources: (i) electronic; (ii) organizational; (iii), social; (iv) informal; (v) through communications networks. Similarly, Brandão (2014) demonstrates that knowledge embedded in human resources, customers and personal or informal contacts (social capital resulting from participation in informal networks) can also be considered a source of knowledge for in-

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[5] Cloud computing refers to convenient access to multiple applications, data, and software through Internet browsers. In general, in cloud computing the user does not need to install applications and programs on their devices, they just access a website containing the stored files.

[6] The Internet of things refers to the connection of equipment or utensils of everyday life to the Web.

[7] End-User Intenet Service System relates to the equipment and applications that support the cloud computing and the Internet of Things (Wang et al., 2013).

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novation in tourism. Knowledge may also originate from (i) making, through learning from experience; (ii) interaction; (iii) the performance of specific institutional structures; (iv) cultural change (Cooke et al., 1997). Through these concepts the importance of production and transmission of knowledge arises, whether explicit or tacit, or for the innovation in tourism regions.

The role of knowledge for innovation in tourism should be highlighted. The contemporary tourist is more experienced, informed, and demands their choices; they look for authenticity and uniqueness in destinations and they prefer travel experiences where knowledge and learning are core elements for their motivation. Therefore, destinations should be more innovative, and by this way, become more appealing in the global tourism economy (Halkier et al., 2014). These innovations can help tourists in their quest for more authentic and unique experiences in destinations. In this regard, Cherly and Chris (2013) refer to the interaction between the organizations at the destination, forming networks of governance, as a strategy to ensure the collaboration and creation of an environment that supports innovation through knowledge.

Hoarau and Kline (2014) emphasize knowledge sharing between tourists and tourism businesses, where innovation arises from co-creation, i.e. from relational practices between service providers and their customers. The authors conclude that the tacit knowledge is important for improving products and services and to introduce innovations. In addition to the processes of co-creation between clients and tourism compa-

nies, Hoarau and Kline (2014) point out the social competence regarding the relationships between tourism organizations and their employees as particularly important for the acquisition of knowledge and its absorption and assimilation in order to generate innovation. For Cherly and Chris (2013), innovation is the key to success for destinations in the tourism market and it is based on the generation, transfer and use of new knowledge in tourism. The destinations must be guided by innovation and by their brands to ensure future sustained growth (Zhang & Xiao, 2014).

Literature on tourism management is consensual about the need to combine the efforts of the community, companies and institutions to conduct the regions towards innovation in the tourism activity (Hall & William, 2008; Hjaleger, 2010; Carson, Carson, & Hodge, 2014). The concept of regional innovation systems arises, therefore, from networking, business channels, governance, interaction, and Local Productive Systems (LPS), in which the process of knowledge transfer is a prerequisite for innovation in tourism (Hjalager, 2010).

In this context, an articulation between tourism, innovation, and region, emerges based on a governance model that moves away from a monolithic development vision. Knowledge and innovation, in theory, are transferred from the interactions between institutions and organizations of variable geometry, their policies, from the educational and research institutions, business development, and from cultural and social environment (Carson et al., 2014). This theoretical frame envisages the logic of produc-

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tive clusters of many regional tourism agents, motivated not only by the possibility of knowledge transfer as a support for innovation, also involving competitiveness based on cooperation and, in turn, generating local development.

Cohesion and the level of interaction between stakeholders are more appropriate in the context of regional innovation systems than the confinement of the organizational system and the tourism management to the political boundaries of the tourism territories (Bunnell & Coe, 2001). Carson et al. (2014) highlight that geographical proximity is not a prerequisite for the exchange of knowledge, once networks can be inter-regionally established. In this way, Carson et al. (2014) explain that a innovative sector as in the case of tourism, should be open and their networks involving different spatial scales (regional, national, global). In turn, Brandão (2014) stresses that the importance of geographical proximity may depend on the stage of development of the tourism region. The author exemplifies, empirically, that more developed tourism regions may present an exchange of knowledge more external to the region, while areas less developed may have sources of knowledge exchange implemented more locally. In any of the situations, the author concludes that "the interaction with local or regional organizations is the most important source of knowledge" (Brandão, 2014, p. 512).

Regional innovation systems must be associated with universities, research institutions, and technology transfer agencies, the generators of updated knowledge and trends (Cooke et al., 1997; Scott & Law, 2006). Also

in this line of reasoning, other factors are relevant to the characterization of a regional innovation environment: (i) natural resources; (ii) human capital; (iii) sharing of values; (iv) and cooperation culture (Brandão, 2014). It is observed that regional innovation in tourism is a cumulative and interactive process, rooted in the territory and in networks. In this step of the analysis, we present a case study that describes the *Observatório de Turismo do Distrito Federal* (OTDF) (Tourism Observatory of the Federal District) – Federal District, Brazil - which implementation occurred by the effective dialogue between its members and the preparation of a final product, the monitoring system of the regional tourism.

4 THE CASE OF THE TOURISM OBSERVATORY OF THE FEDERAL DISTRICT (BRAZIL)

An experience of regional innovation in tourism can be exemplified by the implementation of the Federal District' Observatory of Tourism (OTDF) and it is associated with a physical dimension, the regional scale of the District, while reference unit which determined its scope, and to the political dimension, as a process that brings together characteristics and convergence prompted mainly by the governance, becoming as innovative for the management of tourism, as noted by Cherly and Chris (2013) about the context of formation of governance networks in tourism.

The Federal District (FD) is situated in the central Brazilian plateau, is the smallest portion of the country's territory, however, it is equivalent in terms of political administra-

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tion to other states of Brazil. Unlike the municipalities that comprise, with autonomy, the territorial division in each state, the FD is divided between administrative regions political and financially dependent of the district government. In this division, the Administrative Region number one integrates the Brasilia's Urban Ensemble - a territory legally protected by district and federal legal instruments and part of UNESCO's World Heritage[8] list – that concentrates much of the economic activity and jobs (Brasil, 2007). Historically, its territorial formation motivated the formation of an Economic Development Integration Network (RIDE) of the Federal District that, despite little operational capacity, integrates its territory associated to the municipalities of influence in the states of Goiás (GO), Minas Gerais (MG) and Bahia (BA). Following Bunnell and Coe (2011) in this respect, the Federal District joins other territories located outside of its political geography, composing a network of exchange of synergies outside their territorial limits.

Whilst tourism destination, the local and federal public policies, and even the local productive sector of tourism, take the historical fact of the creation of the national capital as an unprecedented achievement of Brazilian modernist program, both for being one of the landmarks of 20th-century urbanism and boosting the Brazilian architecture, and assume Brasília as a brand for tourism promotion (business tourism and also the so-called

civic tourism). Although this can restrict access to the potential tourism activities around the Capital (like some kind of regional distribution hub for tourism), on the other hand, it facilitates its identification and image as a destination. However, OTDF took as base for observation not only Brasília, but the region of the Federal District, allowing, therefore, the consolidation of an open system of innovation, such as Carlson et al.
(2014) and Cooke et al. (1997) defend.

In terms of a chronology, the birth of the Observatory as a proposal of management emerged from the institutionalization of the Brasilia Tourism Management Group (GGTB), in 2009, through the Tourism Regionalization Program – 65 Tourism-inducing Destinations Project[9]. At that moment, the GGTB officially took the mission to "Subsidize the structuring of tourism enabling the competitiveness of the inducing destination Brasília, as well as to set parameters, laying put forward strategies and monitoring the Development Plan of the Destination until 2014" (GGTB, 2010).

In this way, a process of political dialogue involving the civil society began, represented by the tourism sector which, in 2010, led to the reactivation of the Tourism Development Council of the Federal District (Condetur/DF)[10], an advisory and proposing entity that in its composition included the same insTitutions representatives of the private sec-

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[8] The city of Brasilia, capital of Brazil, is part of UNESCO's World Heritage list since 1987 (UNESCO, 2015).

[9] The Program of Regionalization of Tourism, from the Brazilian Ministry of Tourism, proposed that all tourism regions were coordinated by group managers, i.e. working groups with representation and leadership of local pro-

ductive sector of tourism in the region of which they were part, in this case the FD.

[10] The Council, with advisory and proposing aims, had its internal regulations and composition approved through Decree N.º 33,525, February 9, 2012, when it comprised 11

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tor, public authorities, and third sector that composed the GGTB, namely: Brazilian Association of Hotels (ABIH/DF); Brazilian Travel Agencies Association (ABAV/DF); Association of Sales and Marketing Managers of Brazil (ADVB/DF); Bars and Restaurants Brazilian Association (ABRASEL/DF); Brazilian Association of Bachelors of Tourism (ABBTUR/DF); Association of Income Tourism Agencies of Brasília (ABARE/DF); Centre for Excellence in Tourism at the University of Brasilia (CET/UnB); Union of Rural Tourism and Ecotourism in the Federal District (RURAL-TUR/DF); Union of Tourist Guides of the Federal District (SINGTUR/DF); Association of Tourism Companies of the Federal District (SINDETUR/DF); Convention & Visitors Bureau of Brasília Region (BRC & VB); Trade Fairs, Congress and Events of the Federal District (SINDEVENTOS/DF); Association of Hotels Restaurants, Bars and Others of Brasilia (SINDHOBAR/DF); Forum of Tourism Higher Education Institutions of the Federal District (DSS/DF); State Office of Tourism of the Federal District.

Within the GGTB, such institutions have put forward the Tourism Development Plan of the Inducing Destination Brasília which, among its goals included the creation of "a **monitoring system** of the tourism activity in the destination – for inventory and diagnosis, considering aspects of tourism demand and supply" (GGTB, 2010). It should be stressed that the need for observation/perception of supply and demand pervaded the

concerns of the Group, particularly, by the lack of information that would help to set goals within the Plan. I.e., there was no exchange and flow of information within the industry which allowed the observation of the situation in order to set future goals. In this context, we refer to the studies conducted by Hall and William (2008), Hjaleger (2010) and Carson et al. (2014) on regional tourism synergies between the various stakeholders, establishing the process of interactive transmission of information and knowledge.

In the planning workshops, conducted to identify the major constraints and potentials for tourism development of Brasília, the GGTB applied the GUT methodology (Gravity-Urgency-Trend) classified and prioritized the detected constraints in a first phase. Therefore, it used as a reference document, among others, the Studies of Competitiveness of the Regional Inducing Destinations, in 2008 and 2009[11]. These studies showed that in relation to the public policies dimension the inducing destination Brasília required: (i) legal framework (formal public policy); (ii) actions and results linked to regional cooperation (in the Central-Western country) and (iii) monitoring of tourism activity, according to Table 2. These results arose from the exchange of tacit knowledge organizationally and socially constituted by the governance (Gibbons, 1994), as well as by the explicit knowledge base (Albernath & Clark, 1985) encouraged by formal studies previously carried out in the region.

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advisors from the public sector and 21 from the civil society (Setur/DF, 2014).

[11] Study carried out for the first time in 2007, resulting from

the partnership between the Ministry of Tourism, the Brazilian Service of Support for Micro and Small Enterprises (SEBRAE/Nacional) and the Getúlio Vargas Foundation.

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Table 2 - Analysis of competitiveness of the inducing destination Brasília

	Variables	Analysis
Political and public dimensions	Public Policy	[...] there is no formal planning model for the tourism sector. *Also, in the moment of this research the instance of local governance represented by CONDETUR – Tourism Development Council was inactive.*
	Regional cooperation	[...] *there is no integrated tourism development plan of the region which the destination belongs.*
	Monitoring	*The monitoring of economic, social and environmental impacts generated from the tourism activity is not carried out [...]. There is neither a system or set of indicators of sector performance, nor a technical inventory of tourism statistics.*

Source: FGV/Mtur/Sebrae (2009)[12]

The proposal of the Plan, as well as the planning of the GGTB, contained an action proposal for the creation of a **monitoring system** of tourism in the Federal District (Table 3), until then known as the Tourism Statistics System[13], to gather tourism data.

Table 3 - Action from the Tourism Development Plan of the Inducing Destination Brasília

Variable	Tourism Statistical System
ACTION 1	To create a system of monitoring of tourism in the Federal District (Tourism Observatory)
DESCRIPTION	To develop and implement a tourism monitoring system in the Federal District to subsidize the planning, the management, the evaluation, and monitoring the tourism activity
GOALS	1 To create and implement a tourism monitoring system in the FD until December 2010 2 To implement a monitoring system until October 2011 3 To support the creation of the Tourism Research Institute of the Federal District

Source: Adapted from GGTB (2010)

GGTB`s work, the proposal to implement the monitoring of tourism activity in the FD, legitimized in the planning process of the GGTB, was considered in the strategic plan of the State Office of Tourism of the Federal District, with the proposal of the implementation project of the Tourism Observatory of the Federal District. There was a public call for tenders[14] in 2011, and the project started by the end of that year. This process

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[12]   Available   in: http://www.turismo.gov.br/sites/default/turismo/o_ministerio/publicacoes/Indice_competitividade/2009/BRASILIA_Relatorioanalitico2009%20ok.pdf
[13]   Nomenclature influenced by the demand of the World Tourism Organization (UNWTO) in creating a Satellite Account.
[14]   The result of the bidding included the center of excellence in tourism at the University of Brasilia in its execution.

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of building public policy should be highlighted because the sharing of needs between the different stakeholders led to a consensus arising from the validation of convergent interests, and in a continuous process.

This initial experience, until its institutional materialization as support for the de velopment and implementation of public policy[15] - consolidated, while innovative process, the connectivity and interactivity between organizations related to tourism (Cherly & Chris, 2013) which extended until the conclusion of the Project. Connection and interaction imply, in the context of this study, situations of tension and conflict mediated, often, in the meetings of the Condetur/DF.

To ensure the participatory process in the context of local tourism, sustainability in an ideal governance, the Participatory Management was one of the products generated by the Project. This has extended the connection and interaction both in specific meetings with representatives of the local productive sector of tourism and in actions of mobilization and involvement with agents indirectly related to it. The mobilization actions of Administrative Regions were key to the understanding and realization of the Inventory of Tourism Resources, as well as the participation of the private sector in the surveys, such as the Tourist Profile and Satisfaction Survey and Monitoring, which allowed for adjustments in the research instruments. Various

internal and external meetings were conducted (within the Tourism Development Council of the Federal District) which led to improved communication, awareness and participation, forming interaction links to the dissemination of tacit knowledge, in this communication network (Gibbons, 1994; Brandão, 2014).

In this sense, the leveling of the language adopted in the Project of Implementation of the OTDF enabled the common understanding on the creation of a "ground zero" of data from the observation of tourism so that over time various "pictures" of the observed reality allowed to adjust the management to programs and projects.

Therefore, Brandão (2014) stresses that the expertise of human resources generate knowledge when an organizational or operational system, such as tourism, promotes it. In this perspective, the participation of the Centre for Excellence in Tourism of the University of Brasilia CET/UnB represented a significant differential in the conduction of the OTDF implementation process in different senses, including: (i) the possibility of articulating and gathering the knowledge produced at the University for the construction of products in demand; (ii) the conduction of the process in a participatory management system, dialogic, which intensified the communication with and between the various interlocutors, key aspect on their involvement and participation in the construction of

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[15] The OTDF emerged as public policy proposal, associated, in the process, in 2012, to the promulgation of Law No. 4,883, 11 July 2012 which established the tourism policy of the Federal District. In this document the OTDF figure as an "instrument of management of the official tourism agency, responsible for the Organization, systematization, provision and dissemination of research studies

and data from the Federal District offered by public and private entities that work in the tourism sector." The document that contains the Federal District tourism policy is available at http://observato-rio.setur.df.gov.br/files/8714/2382/4476/Lei_4.883_de_11_de_setembro_de_2012.pdf

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knowledge to the Observatory.

In addition to the explicit knowledge dimension, the CET/UnB can transmit to the network established its know-how and accumulated experience in governance and observatories. The participation of the CET/UnB, ensures the indispensable participation of educational institutions and research centres in the process of regional innovation in the tourism (Cooke et al., 1997; Scott and Law, 2006; Brandão, 2014; Carson et al., 2014).

However, for the maintenance of the connectivity/ interactivity factor of the established network, combined with shared management, it was also important the information and communication technologies (ICTs) support. The whole concept of ICT as an inducing innovation factor has drawn the interest of various researchers (Hjaleger, 2010). This case study concurs with the author's statement, since the implementation of an ICT tool that enabled the development of a shared database involving data collection, storage and processing for planning and management of the sector. The instrument
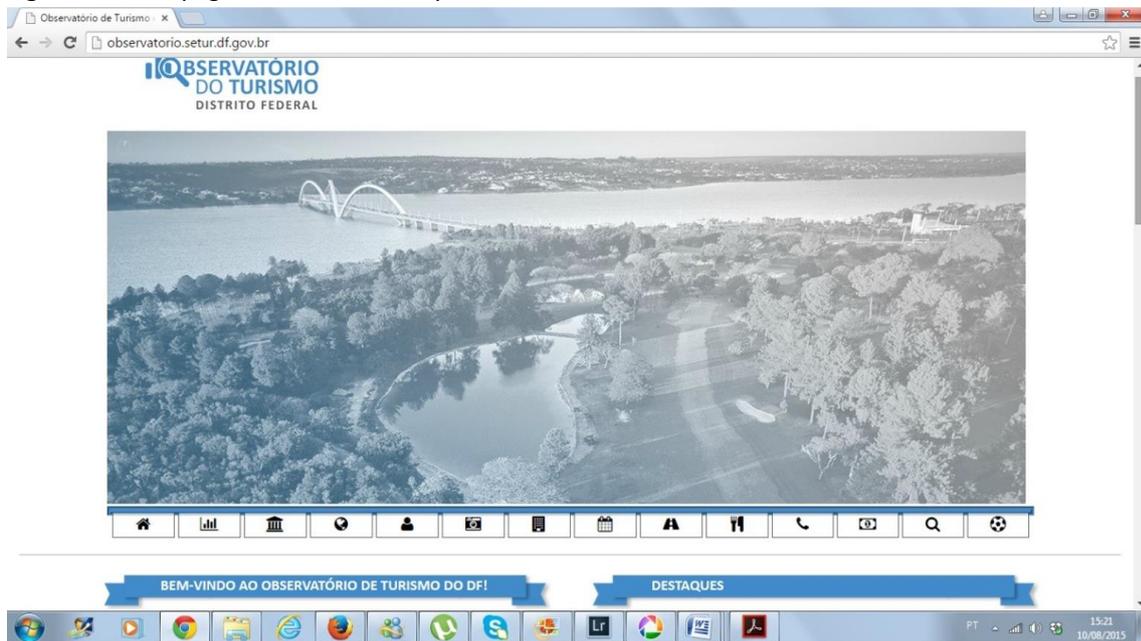
called Computerized Data System for the Tourism Observatory of the Federal District had its architecture originally designed in seven functional modules: 1 -Tourism Supply module (Inventory); 2 - Monitoring module; 3 - Demand module (Profile and Satisfaction); 4 - Web Data Mining module; 5 - Embedded Platform module; 6 - Display of Results and Report Generation module and; 7 – Observatory Web Portal module.

The Observatory Web Portal[16] was the final module and allowed the remote interaction for both the general public and the tourism sector participants. Figure 2 presents the homepage of the portal, in which the OTDF is defined as:

> An instrument for data observation, collection, processing, analysis, generation, and monitoring. Supporting tool for planning, management, and monitoring of the tourist phenomenon aimed to help business investment decisions and the construction of public policies of the Brasília destination (GGTB, 2010).

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[16] Available in: http://observatorio.setur.df.gov.br/

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Figure 2 - Homepage of the Observatory of Tourism of the Federal District

Source: http://observatorio.setur.df.gov.br/

After the conclusion of the Implementation Project of the Tourism Observatory of the Federal District two aspects are worth mentioning: (i) the governmental management that designed it has maintained the actions for data feeding, expanding the possibilities of communication by concentrating on the web portal other studies and surveys carried out, such as reports and surveys of the 2014 FIFA World Cup. It should be stressed that by doing so it contributed to maintain a user-friendly interface; (ii) probably, neither the public nor the private sector has taken fully advantage of the OTDF. The recent changes in the political conduct of the local government, as well as the combinations of interests and private and/or public employment agreements to promote tourism in the Federal District launched a new momentum and challenges the process of governance. This regards the continuity of public management projects, especially those which have obtained positive results so that tourism can get more and better visibility through surveys and studies that generate key data to its understanding and for the planning, management, and perception of the role of the knowledge produced, whether tacit or explicit, for innovation in tourism.

4 FINAL CONSIDERATIONS

Innovation is seen as a process that brings benefits and combined growth to the structure of tourism regions. This logic, however, will depend on the level of gregariousness of the regional tourism agents, the

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strength of the interactions between network participants, the accumulated experience, and the joint explicit and tacit transmission knowledge.

It is observed in this study that the public role in regional innovation policies is particularly relevant for the coordination of synergies and dialogue, the mediation of conflicts, and to subsidize regional agreements. No less important is the role of the educational institutions and research centers that fasten the innovation processes by their capacity for generating and transmitting knowledge, and for their contribution to the cooperative territorial tourism arrangement.

The operationalization of the OTDF has shown that collaboration practices between the agents directly and indirectly involved in tourism within the Federal District can produce results in order to facilitate the planning, management and competitiveness of the tourism destination. Coordination based on the cooperative and regional dialogue has shown that there is a close linkage between exchange of knowledge and innovation, by achieving an innovative product for the planning and management of tourism, called "Observatory Portal". In addition to the convergence of information and indicators, consolidated by a corpus of data provided by the major tourism agents in FD, in the portal the interconnections between these agents emerged, resulting from a multitude of links aimed at the collection, evaluation and processing of data.

Moreover, we recommend the application of this case study in other destinations taken into account their regional specificities.

For this replication, we suggest the identification of key sources of production and dissemination of explicit and tacit knowledge, which should join the regional governance of tourism. These sources should occupy a strategic position in order to facilitate inter and intra-regional flow of information.

This case study opens a research agenda on the subject of regional innovation in tourism in Brazil where the following topics are highlighted: (i) studies using sociometric techniques to identify the most relevant synergies within the regional governance in tourism; (ii) these techniques can produce studies that identify which institutions are key to the production and transfer of knowledge to regional innovation in tourism, in Brazil; (iii) what is the role of residents in the production of knowledge for regional innovation in tourism? (iv) and, what practical applications results from the production and transfer of knowledge from the regional innovation in tourism, in Brazil? Future research on these issues will contribute to the understanding of regional innovation in tourism in Brazil.

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