# Smart tourist destinations: an analysis of tourism governance in Búzios

Destinos turísticos inteligentes: uma análise da governança turística de Búzios

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# ABSTRACT

In the 1990s the term smart city came up, whose meaning is attached to urban development. From this term, the concept of smart tourism destinations was developed, which are destinations capable of bringing more innovation, competitivity, improved quality of life and tourist experience in a territory. For these benefits to happen, it is necessary that the place receive investments mainly in the fields of sustainability and information technology and communication. Besides, companies, residents and local governance must be engaged in the process of transforming a destination into a smart one, according to certification criteria defined by the Ministry of Tourism. In 2011, the energy company Ampla/Enel started the Búzios Intelligent City project, aimed at improving the electricity grid to make the city smart. In 2016 the project was closed and Búzios did not become intelligent for some reasons, such as lack of involvement of local actors and changes in the municipality's governance. From this context, this research sought to identify how tourism governance c can help a tourist destination to become intelligent City Project, minutes of meetings of the Búzios Municipal Tourism Council, internal regulations and interviews with parties related to this council.

Keywords: Tourist destinations; Smart tourist destinations; Governance

## **RESUMO**

Na década de 1990, surgiu o termo smart city, ou cidade inteligente, com o significado atrelado ao desenvolvimento urbano. A partir desse termo, foi desenvolvido o conceito de destinos turísticos inteligentes, que são capazes de trazer mais inovação, competitividade, melhoria da qualidade de vida e da experiência turística em um território. Para que esses benefícios aconteçam, é necessário que o local receba investimentos principalmente nas áreas de sustentabilidade e tecnologia da informação e comunicação. Além disso, empresas, moradores e a governança local devem estar engajados no processo de transformação de um destino em inteligente, conforme critérios de certificação definidos pelo Ministério do Turismo. Em 2011, a concessionária de energia Ampla/Enel iniciou o projeto Cidade Inteligente Búzios, voltado para melhorias na rede elétrica. Em 2016, o projeto foi encerrado sem que seu propósito tenha sido alcançado, entre outros fatores, pela falta de envolvimento dos atores locais e mudanças na governança do município. A partir desse contexto, esta pesquisa buscou identificar como a governança do turismo pode favorecer que um destino turístico se torne inteligente. Além do levantamento bibliográfico, foi feita pesquisa em documentos sobre o Projeto Cidade Inteligente Búzios, em atas das reuniões do Conselho Municipal de Turismo de Búzios e em seu regimento interno, bem como entrevistas com atores relacionados a esse Conselho.

Palavras-chave: Destinos turísticos; Destinos turísticos inteligentes; Governança.

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## INTRODUTION

The increasing population in the cities was one of the factors responsible for lack of resources, price instability, degradation of the environment, lack of energy, among other problems. With these questions, the urban environment became a growing concern, in order to preserve it and prevent the population from being affected. Aiming at solving urban problems, in the early 1990s the term "smart cities" came up, attached to urban development (SCHAFFERS *et al.*, 2011).

Smart cities are those with advanced infrastructure in relation to information and communication technologies (ICTs), aiming at improving the local development strategies. In smart cities, there should be a connection between three factors: technologies (hardware and software infrastructure), people (creativity, diversity and education), and institutions (governance and politics). To be considered smart, the city needs to invest in human and social capital, in transportation and in the infrastructure of ICTs. Besides, it should estimate sustainable economic growth, high quality of life for the population and good management that involves the participation of the government (NAM; PARDO, 2011; SCHAFFERS *et al.*, 2011).

Each city has its own characteristic, diversity and complexity. Some of them are considered as tourism destination, since they attract people from other locations and offer these people a tourism experience (BRANDÃO; JOIA; TELES, 2016). Smart tourism destinations (STD), endorsed by the Ministry of Tourism, in partnership with the Spanish institute Cidades do Futuro (GOV.BR, 2023), enable to provide the tourist with personalized service. However, there are challenges for a tourism destination to become smart (BUHALIS; AMARANGANNA, 2015).

Even though a STD has characteristics such as innovation and sustainability, the tourist experience should be improved in comparison to a traditional destination, as well as the quality of life of residents (GRETZEL *et al.*, 2015). Despite the recognition of the importance of ICTs in the destinations, it is known that these tools alone are not able to transform a tourism destination in smart. There are different actors present in tourism destinations, such as the public and private sectors, the population and visitors. These parties should interact, share information and participate in the decision-making process together. However, there may be problems with the lack of representativeness of citizenship and rotation of politicians, leading to destabilization in the alignment of the government's interest for specific projects (BRANDÃO, 2017).

Cities in Motion, a research platform launched by the business school IESE (2018), assesses the level of intelligence of cities and organizes a ranking based in 10 dimensions: governance, urban planning, public management, technology, environment, international impact, social cohesion, transportation, human capital and economy. The first presented dimension is governance, characterized by the level of participation and collaboration of citizens (ÁVILA *et al.*, 2015). The concept of governance is related to the ability of a political system to generate confidence and involve different actors, be then political, administrative and social ones,

in the decision-making and problem-solving processes in search of development (VELASCO, 2008).

Therefore, it is understood that poor governance and lack of governmental commitment make it difficult for a tourism destination to become a smart destination. This is the case of Armação de Búzios, which has had a project to become a smart city since 2011. In the study performed by Brandão (2017) about smart destinations, it was observed that changes in the government enabled the creation of political value, and that city parties need to be more active, since part of the population does not know the concept of smart city or does not understand how this project can benefit them (BRANDÃO, 2017).

In this context, the general objective of this study was to identify how governance in tourism may strengthen a destination so that it becomes smart. The study included the city of Búzios — chosen for having an active Municipal Tourism Council (COMTUR), for being an international tourism destination and for having been selected by the power utility Enel, in 2016, for a project that aimed at turning it into the first smart city in Latin America – which was not fulfilled.

#### **SMART CITIES**

The term "smart city" appeared in the 1990s, and its meaning is related to urban development. However, the term began to build reputation only in 1999, when Singapore won the Smart City Awards, granted by Intelligent Community Forum (ICF). These cities represent an environment of innovation, enabled by an advanced ICT infrastructure. These technologies, allied to the infrastructure for education, innovation and interaction between companies and government, allow the involvement of local actors, improving the quality of services and the city's well-being (INTELLIGENT COMMUNITY, 2023; SCHAFFERS *et al.*, 2011; STRAPAZON, 2010).

Ávila *et al.* (2015) state that smart cities can also be called efficient cities, or e-cities. For these authors, smart cities have completely defined boundaries from the geographic and political-administrative point of view. With the help of ICTs, these cities need to project innovative spaces that can facilitate sustainable development and the quality of life of the population. Besides, they believe their concept is open to several focuses (ÁVILA *et al.*, 2015).

A smart city can be considered as a way to appropriate the urban space that counts on sustainability as a component. Thus, a harmonious relationship with the environment needs to be briefed. High quality of life needs to be ensured through a good management of resources, with the support of a participating governance. Some key-elements of a smart city are: innovation, creativity, knowledge, people and technologies. In this sense, for a city to be considered smart, it needs three types of intelligence: human, collective and artificial (CARAGLIU; BO; NIJKAMP, 2012; CURY; MARQUES, 2016).

Strapazon (2010) states that intelligence needs to be present in each subsystem, such as transportation, health, water, public security and education, even though this does not guarantee that the city will become smart. It is necessary for the city to be thought of as an organic and interconnected system. Therefore, more attention should be addressed to the connection, and not the parts (STRAPAZON, 2010). Caputo, Walletzký and Štepánek (2018) believe that smart cities have two main goals, as follows: increase the citizens' standard of living and developing in a sustainable manner.

The technological advances in the past few years have enabled the development of a wide range of solutions and products for smart cities. These products use ICTs to improve the management of urban functions in fields like transportation, power, health, water and residue. In this sense, it is observed that technological advances enable cities to become more creative, vibrating, healthier and safer places to live (ANGELIDOU, 2015; HARRISON *et al.*, 2010).

A tool that depends on technologies and can contribute with cities is the smart power network, or smart grid. Despite the high investment, smart networks guarantee the distribution of electricity in a safer, more efficient and sustainable manner. Besides, power utilities can identify flaws, unauthorized connections and provide more flexible and advantageous fares. In the state of Rio de Janeiro, pilot projects have been implanted only in the capital and in Búzios. In the city of Rio de Janeiro, the Smart Grid project was developed; in Búzios, the project Búzios Smart City was created (REDES INTELIGENTES BRASIL, 2018). Moreira (2014) highlights that the use of smart power networks is public utility, because it can be good, for instance, for public lighting, traffic and traffic light control, as well as for water and gas supply.

Despite the lack of ICT infrastructure and the social and political problems that exist in Brazil, there are cases of success, such as the city of Curitiba, which uses technologies for sustainable development. Curitiba is a planned capital, a model for transportation, urbanization and respect towards the environment. Population has free access to the internet and technologies are used in an intelligent manner to promote transparency, efficiency in public management, to monitor bus fleets in real time, among others (WEISS; BERNARDES; CONSONI, 2013).

One of the aspects of smart cities is the presence of intelligent people. According to Giffinger *et al.* (2007), intelligent people are, among other factors, creative, informed, people who vote, who have and share knowledge about their city. They can be qualified, know other languages, do volunteer work, make the location pleasant for immigrants, among other attributes (GIFFINGER *et al.*, 2007).

Šiurytė and Davidavičienė (2016) understand that smart cities do not have a common definition, be it in theory or in practice, but that it is common to recognize smart cities and ICTs as the main elements of these cities. They consider that strategies should be established by the cities so that these elements can interact, which depends on institutional factors such as governance, policies and regulations (NAM; PARDO, 2011; ŠIURYTĖ; DAVIDAVIČIENĖ, 2016).

The structure of governance is important, because even though the participation of formal institutions is essential in smart cities, other stakeholders should be included in the planning and decision-making. Besides, a smart governance needs to generate inclusion, eliminate obstacles referring to communication, improve access of the population to services, improve organizational processes and make them more democratic (DAMERI; BENEVOLO, 2016; STEINERT *et al.*, 2011).

A city with a spirit of governance should be the goal; one in which the citizen has an active participation in the decision-making process. It is important that political components interact, such as boards, municipal councils, city hall and government. These components are essential for smart cities, because they can maintain the population informed (preferably in real time), together and involved with the matters related to the city (NAM; PARDO, 2011).

#### SMART TOURISM DESTINATIONS

A tourism destination is a location where most of the activities of production and consumption of tourism takes place. It can be configured in one or more places, such as a city or a group of cities. Besides, travelers need to feel attracted through a brand that is able to show the characteristics of the destination's offer (VALLS, 2006).

STDs have been studied in the academy. The first definition of STD came up in 2012, and was made by the State Commercial Society for the Management of Innovation and Tourist Technologies (SEGITTUR, 2013), institution connected to the Ministry of Industry, Commerce and Tourism in Spain, based on the concept of smart city (POGGI, 2021). The main difference between the two is that the first emphasizes the improvement of the tourist experience and the competitiveness of the destination (ÁVILA; SÁNCHEZ; 2013; SILVA; MENDES FILHO, 2016).

In smart tourism destinations there is a connection and interaction of the actors through the ICTs, which facilitates the identification and solution of problems, the acquisition of information about the needs and preferences of tourists, and still enables multiple visions towards a common direction and decision-making as a group (BUHALIS; AMARANGGANA, 2015). Baidal, Monzonís and Sánchez (2016) state that ICTs originated new models of destination management, such as the administration of smart destinations. However, it is worth to remember that such technologies cannot guarantee the efficiency of tourism destinations without appropriate governance (BAIDAL; MONZONÍS; SÁNCHEZ, 2016).

Gomes, Gândara and Ivars-Baidal (2017) state that we talk about territorial intelligence when ICTs are used efficiently, and especially when actors work with efficient governance, that is interested in managing a sustainable tourism destination. Despite the importance of ICTs in smart tourism territories, governance and involvement of the actors are the focus. ICTs work as conductors so that objectives, such as sustainable development, be reached.

Sustainable development becomes the base of territorial intelligence, which should include environmental, social and economic aspects. But in order for the inclusion of sustainable development to occur, participative models and the cooperation of the parties are necessary; that is why governance is vital. Brandão (2017) states that one of the factors that turn a tourism destination into a smart tourism destination is the engagement of local actors, who should share information and participate, together, of the decision-making process. The implementation of a STD cannot be a responsibility and of interest only for the public administration; it needs the engagement of the population and the companies (BRANDÃO, 2017; GOMES; GÂNDARA; IVARS-BAIDAL, 2017).

SEGITTUR presents two pillars of STDs: new information Technologies and sustainable tourism development. When a traditional tourism destination becomes a STD, it is benefitted with increasing competitiveness, quality of life, tourist experience and generation of an innovative space (SEGITTUR, 2013).

A STD can be defined as an innovative place with tourist structures, with cutting-edge technology and infrastructure, whose goal is to facilitate the tourists' interaction and integration with the surroundings, besides including them in the destination's decision-making process, always considering the quality of life of the locals. However, the target-audience is the tourist, and not the resident, because the main objective of a STD is to improve the tourist experience that comprehends what comes before, during and after the trip (ÁVILA *et al.*, 2015).

In these spaces, concerns about the environment, cultural and socioeconomic matter are also essential. The implantation of a smart system that allows the collection, analysis and distribution of information needs to be included. Therefore, in a STD, innovation, technology and sustainability are important (ÁVILA *et al.*, 2015).

#### **GOVERNANCE IN THE TOURISM SECTOR**

Xavier (2016) defines tourism governance as a structure that establishes mechanisms of coordination, with the ability to organize the existing relations and interactions between local actors. According to the author, tourism governance allows competitive advantages in the tourism destination. For Velasco (2014), incorporating the public and private actors in group decision-making processes is part of tourism governance, which incorporates ideas such as: government as a social process, activities guided for concrete objectives, increasing cooperation, establishment of rules that allow the work as a group, among others.

Tourism governance, or tourist governance, can be understood as a guidance activity and a new way of making group decisions about topics related to the administration of conflicts of interest, strengthening weaker parties. It should also change the activities related to tourism that cause negative impacts on the site (VELASCO; TRENTIN, 2014). For Queiroz and Rastrollo-Horrillo (2015), governance allows to identify how to implement an effective exercise of sustainability in tourism destinations.

According to the National Tourism Competitiveness Study (*Estudo de Competitividade do Turismo Nacional*) (BRASIL, 2015), tourism governance is a measurable managerial and operating strategy, necessary to reach common goals. It works to help the multiple inter-relations of the parties involved in the production of goods and services for tourists, besides managing the field in a more efficient manner, in the several levels of the government, and looking for solutions for problems.

According to Duran (2013), tourism governance became a current focus of interest. It includes different levels of public administration and their relations with the private sector in tourism destinations. Global tourism policies, institutions and legislative aspects are also part of this type of governance. Velasco and Trentin (2014) analyzed the insertion of the work "governance" in the context of the Brazilian tourist politics and identified a connection with the ideas of decentralization, participation, cooperation, networks and partnerships. It is emphasized that the search for more autonomy was one of the causes of decentralization in the tourism sector, originating the convention bureaus, which aim at promoting tourism, and tourism councils, as examples of tourist governance, in the different governmental levels (FRATUCCI, 2005).

There is not one single model that adjusts to any location, nor a perfect city; however, it is possible to understand that it is essential to define which type of city it intends to be, and what dimensions need to be improved. These dimensions should not be operated separately, because they are not independent. Therefore, having good governance is not enough for a place to become smart, even though it can influence the other dimensions (IESE, 2015).

## Armação de Búzios

We chose to briefly describe the city of Búzios in order to understand the context of the research.

About Armação de Búzios, it is a city located in the coastal lowland Region, in the state of Rio de Janeiro, 165 km away from the capital. It was part of Cabo Frio until 1997 (BÚZIOS, 2018). According to the Brazilian Institute of Geography and Statistics (IBGE), in 2010 the city had 27,560 inhabitants, increasing to an estimation of 32,260 people in 2017. As to the main local economic activities, fishing and tourism stand out, boosted by the presence of over 20 beaches in the city (IBGE, 2018).

Búzios is a tourism destination inserted in the Costa do Sol region, together with Araruama, Arraial do Cabo, Cabo Frio, Carapebus, Casimiro de Abreu, Iguaba Grande, Macaé, Maricá, Quissamã, Rio das Ostras, São Pedro da Aldeia and Saquarema (TURISRIO, 2018). According to the Court of Audit of Rio de Janeiro (TCE-RJ, 2016), Búzios and Cabo Frio, unlike the other cities in Costa do Sol, are classified in the "A" category of tourism destinations, which means there are more companies that provide accommodation and jobs in the field.

The Municipal Tourism Council of Búzios was instituted by law n. 990, from September, 2013. As established in its Internal Regulations, the council has advisory roles addressed to the Municipal Executive Branch. According to Kronemberger, Medeiros and Dias (2016), when the council has an advisory role, it should give recommendations to the public authority through opinions and suggestions. The objective of COMTUR, according to the Internal Regulation, is to give opinions, suggest, indicate and propose measures to improve and develop the tourism activity in Búzios. According to decree n. 994, from August, 2018, the Municipal Tourism Council of Búsios is composed of representatives of several institutions, such as the Commercial and Business Association, the Association of Inns, the Association of Hotels, the Association of Quilombolas of Rasa, the Cab Drivers' Association, Búzios Convention & Visitors Bureau, besides municipal entities related to tourism, environment, culture, public order, civil defense, planning and urban development, besides legislative power.

## **METHODOLOGY**

We performed a qualitative study using the case study research strategy. This approach is adequate to examine contemporary events and is especially useful for research questions that begin with the words "how" and "why" (YIN, 2010). The research question that guided this study was: How can tourism governance contribute to transform a tourism destination in a smart destination? As to the unit of analysis, the choice was to select the Municipal Tourism Council (COMTUR) of Búzios, since this is the organization that represents tourism governance in the city the most.

The interviews were carried out in May and June, 2019, with 11 face to face interviews in the city of Búzios. Among the interviewees, eight are members of the council; one attends the meetings as an advisor of COMTUR; and two are members of institutions that are part of it, but are not advisors. Besides these interviewees, a pilot test was carried out in February, 2019, with a representative of the cab drivers' association and member of COMTUR. A semi-structured script was used for the interviews.

The used tata analysis strategy was the content analysis (BARDIN, 2011). For data treatment, we used concepts that were extracted from the three topics discussed in the theoretical reference developed in this study: smart cities, smart tourism destinations and tourism governance. Chart 1 aims at characterizing the approached central concepts.

Categories	Concept	Authors
Quality of life	Concerns about security, education, health and culture of residents	Giffinger <i>et al</i> . (2017)
Tourist experience	Involves colors, sounds, smells, entertainment, hospitality, service, accessibility and prices.	Pérez (2009)
Destination's sustainable development	Sustainability in the environmental, economic and sociocultural dimensions	Ávila e <i>t al.</i> (2015)
Innovation	Technologies, processes, services or products, with the objective of increasing efficiency, profi- tability and competitiveness of the destination	Ávila e <i>t al.</i> (2015)
Competitiveness	Destination's capacity to provide better goods and services to visitors	Dwyer and Kim (2003)
Technology	When technologies are used adequately, they can improve the use of resources, data collection and decision-making in a smarter way	Cury e Marques (2016)

Chart 1. Thematic areas.

Source: the authors (2022).

#### **RESULTS AND ANALYSIS**

The main results will be presented in this section, followed by the corresponding analyses and discussions, organized according to the categories defined in the methodology.

#### Sustainable development of the destination

The interviewees were questioned if Búzios could be considered as a sustainable tourism destination. Interviewee 1, for example, stated that in comparison to other destinations, Búzios can be considered sustainable, but there are challenges to be faced, such as problems related to sewage.

In July, 2019, the sewage treatment plant of Búzios received investments. A grit chamber was installed in the plant to remove solid particles and sand from the sewage, aiming at the modernization of the treatment and the improved quality of the effluent (PROLAGOS, 2019). With this investment, there are more chances that the city can reduce sewage-related problems.

Some interviewees expressed the opinion that Búzios is not a sustainable destination for several reasons, such as problems in basic sanitation, waste collection, quality of jobs offered in the city and permission for activities that cause negative impacts in nature, besides the inadequate exploration of natural resources. Sustainability is related to the reduction of waste, increased efficiency and promotion of human and social capital, aspects that should be assessed from the perspective of business people, as well as cultural and the social perspective (ÁVILA; SÁNCHEZ, 2013; CAMARGO, 2014).

There seems to be awareness about the need for actions that are aligned with sustainable development, which is one of the pillars of smart tourism destinations (SEGITTUR, 2013). These actions can boost innovation, competitiveness, and provide better quality of life and experiences to tourists.

## Quality of life

When questioning interviewees about what they consider to be quality of life, and whether Búzios provides such quality to its residents, the answers varied. For the minority of them, Búzios does not provide quality of life due to the little intervention of public authorities to restrain aggression against nature and sound pollution due to the major events that take place in the city. For example, interviewee 10 believes that Búzios does not provide quality of life because of the non-compliance of legislations and the promotion of events that disturb the peacefulness and damage the environment.

On the other hand, for most interviewees, Búzios provides quality of life. They highlight reduced criminality and the closeness to nature as positive aspects. Interviewee 4 mentioned that, in his opinion, Búzios offers quality of life because places are close to one another, so one can ride a bike to work or go to the beach very often. Interviewee 9 states that Búzios "definitely" provides quality of life, because, for him, it means living away from the stress of big cities and excessive noise, which have a negative impact on health. To become a smart destination, Búzios should follow the teachings of Caputo, Walletzký and Štepánek (2018), who defend that smart cities are those in which the main objective of governos is to increase the citizens' standard of life.

## **Tourist experience**

An improved tourist experience is the main objective of smart tourism destinations. This experience includes aspects that occur before, during and after the trip, involving infrastructure and elements such as accessibility, price, hospitality and service (ÁVILA *et al.*, 2015).

Several matters that have a negative impact on the experience are mentioned in the Council minutes, such as harassment from waiters, lack of reliability in schooners, inadequate sidewalks, lack of ordering in spaces and negligence with beach huts. Despite not being a unanimous opinion, interviewees also tend to evaluate the experience negatively, pointing out the high prices practiced by traders who work at the beaches, besides problems related to infrastructure and traffic. In this context, tourism governance in Búzios acknowledges the need to overcome the negative experiences of tourists.

## Innovation

Just like sustainable development, innovation is one of the pillars to transform a destination in smart (SEGITTUR, 2013). Innovation can be found in technologies, processes, services or products, always aiming at improving them, increasing efficiency, profitability and competitiveness in the destination (ÁVILA *et al.*, 2015). For the destination to become more competitive, innovation needs to be present (DOMARESKI-RUIZ; GÂNDARA; CHIM-MIKI, 2015).

Based on the answers obtained from interviews, it became clear that the city needs to be more innovative to become a smart destination. For example, for interviewee 11, innovative destinations renew themselves and bring News. He mentioned that, in his opinion, Búzios is not an innovative destination because its management is conservative, and some administrators believe that the beaches are sufficient. "Búzios is not innovative because tourism is basically the beach, there are no other attractions. At night there is Rua das Pedras, but besides that, there is no attraction, no advantages", reinforces interviewee 8.

According to Ávila *et al.* (2015), to become a smart tourism destination, the place should be innovative, with tourist structures, technology and cutting-edge infrastructure, with the objective of facilitating the interaction and integration of tourists with the surroundings. In this sense, the installation of more touristic in-frastructures could provide new attractions for the destination, so that the visitor could stay in Búzios for a longer period of time, and return more often.

## Competitiveness

About competitiveness, it is possible to state that it is related to the ability of the destination to provide better goods and services to visitors (DWYER; KIM, 2003).

The National Tourism Competitiveness Index (BRASIL, 2015) points out that, in order to improve competitiveness, it is important to work on some dimensions, such as: access, general infrastructure, public policies, monitoring, tourist attractions and promotion of the destination.

According to the National Tourism Competitiveness Index Report (BRASIL, 2015), Búzios' main advantages are urban conservation and cleanness in touristic areas, positive image in national and international media, and proximity to International Airport Antônio Carlos Jobim (Galeão), located less than 200 km from the city. Besides, there are other positive aspects that contribute with this destination, such as the work of Convention & Visitors Bureau, the presence of a Tourist Information Center, the use of social network with a promotional profile and the creation of events that attract tourists.

Also according to the 2015 Index, despite the destination's positive aspects, there are challenges to be faced. Some of them are the lack of accessibility in tourist attractions and accommodations, traffic in the peak season, inexistence of bus stations, lack of tourist signs in a foreign language, inexistence of studies of load capacity, lack of an active tourism municipal fund, use of informal workforce during the high season and the low awareness of citizens about the impacts of tourism on the destination.

The interviewees were asked about what they considered to be a competitive destination and if Búzios can be classified as such. In this aspect, interviewee 5 mentioned some characteristics:

I think it is when a brand is strong. It has a well-defined, right audience, ordered tourism. This work sounds a little elitist, I understand some may think this is an elitist thing, but I see another side. Order is essential so that each person can understand how far they can go. The public sector has to be empowered, know what their obligations are, for example: a beach without public ordering is a mess.

Interviewee 1 believes that, to improve competitiveness, it is important to offer a good experience since the moment the tourist arrives at the airport. He considers that it takes good service and in several languages, both in cabs and in shuttle services, and that hotels need to have good conditions. He also mentioned that the city should have a logotype.

For interviewee 5, the city is already competitive, considering it receives more tourists than it should. However, he believes creativity is a necessity, because the city depends on tourism, and tourism in Búzios is basically about sun and sea; there should be alternatives, especially for the low season.

Interviewee 6 also thinks Búzios is a competitive destination because it receives many tourists. He stated that the city usually receives 500 thousand people in the peak season and "gets ahead of other destinations" regarding competitiveness.

Even though there is a perception that Búzios already is a competitive destination, it is observed that the city can leverage this competitiveness even more by improving its governance mechanisms. It is worth to remember that, according to Xavier (2016), tourist governance allows competitive advantages to the tourism destination.

# **Technologies**

Technologies can bring improvements to tourism destinations in different ways. One example are smart power networks, or smart grid, which guarantee the distribution of energy in a safer, more efficient and sustainable way (REDES INTELIGENTES BRASIL, 2018). Sensors can also be installed, as well as wireless networks and cameras, that are able to help with security, sustainability and local management (BOUSKELA *et al.*, 2016). Another idea is the crowdsourcing, which uses the knowledge of the citizens for data collection (NESTA, 2015).

All of the interviewees believe that the use of technologies is able to bring benefits to Búzios. Interviewees 1, 4 and 5, for example, consider that information and communication technologies promote better experiences, especially because of the access to information, such as time of an event or a transport. Interviewee 2 mentions that technologies can also assist the administration of hotels and staff training, even though sometimes they can lead to the loss of "human, friendly and warm aspect".

Technology is beneficial for managing the destination, according to the perception of interviewees, which corroborates the vision of Angelidou (2015) and Harrison *et al.* (2010), for whom technological advances enable cities to become more and more creative, vibrating, healthier and safer to live in.

## FINAL CONSIDERATIONS

This study aimed at identifying how tourism governance can contribute for a tourism destination to become smart, using Armação de Búzios, in Rio de Janeiro, as a case study.

The first step to reach that objective was to understand what defines a smart tourism destination and to identify its relationship with the concept of smart city. In this sense, it is important to highlight that the concept of smart tourism destinations derives from the concept of smart cities, sharing similar characteristics such as sustainable development and investment in information and communication technologies.

Several factors can influence the tourist experience, including service, the quantity and quality of tourism attractions, local infrastructure, information that is available in different languages, accessibility, safety and prices of products and services. All of these aspects are considered as relevant for the Municipal Tourism Council of Búzios (COMTUR), which is essential, once a tourism destination does not become smart just through sustainable development and the adoption of technologies.

For a place to develop in a sustainable manner, to acquire information and communication technologies, to create innovation strategies, to improve the visitor's experience and to increase its competitiveness, it is essential that governance be efficient. The engagement of local actors, the stimulation to the population's participation and transparency are essential to benefit tourism. Besides, tourism governance is necessary to deal with conflict and to strengthen less influent actors. Given that the tourism sector comprehends a wide range of questions and affects several areas, it is important that the public and private sectors, as well as the local community, be involved in the decision-making process.

In Búzios, the identified problems related to the participation and involvement in the council, as well as divergent interests between the public and private sectors, which makes it difficult to make decisions and execute tasks. However, as an advisory entity, COMTUR can contribute with the city's tourism sector significantly. Different parties, such as secretaries, businesspeople and institutions' representatives, are part of the entity, which can facilitate the search for a positive experience for tourists and the locals' well-being.

The council tries to solve problems such as irregular accommodation and seasonality, which mainly affect businesspeople and their employees. There is a concern that tourism in the city is restricted to "sun and beach", which contributes with seasonality. A strategy to fight this seasonality is the conduction of events, which are properly publicized in the social media of hotel and inn associations, Convention & Visitors Bureau and the city hall.

Offering a positive experience to the tourist should be the goal of the parties involved in the development and management of tourism destinations. Recognizing strong and weak aspects is essential to elaborate and implement plans that aim at providing better experiences to visitors, but in order for the destination to be smart, it takes investments in innovation, cutting-edge technology and sustainability.

Projects and investments in these fields can bring benefits to tourists, local residents, companies and the environment. The decision-making process should be collaborative, considering the opinion of tourists and residents. Partnerships need to be established for the development of projects and fundraising. In this sense, tourism governance plays an essential role, bringing together the parties involved in the tourism destination and stimulating changes.

Búzios already is a consolidated tourism destination, but it is necessary to maintain its competitiveness to prevent a decline. Making a destination smart is a promising strategy to keep attracting tourists, since this will bring benefits such as innovation, preservation of the environment, access to information, safety and quality of life.

## REFERENCES

ANGELIDOU, Margarita. Smart cities: a conjuncture of four forces. Cities, v. 47, n. 4, p. 95-106, set. 2015. https://doi.org/10.1016/j.cities.2015.05.004

ÁVILA, Antonio López; LANCIS, Enrique; GARCÍA, Susana; ALCANTUD, Andrés; GARCÍA, Beatriz; MUÑOZ, Nuria. **Smart destinations**. Madrid: Sociedade Estatal para a Gestão da Inovação e das Tecnologias Turísticas (SEGITTUR), 2015.

ÁVILA, Antonio Lopez de; SÁNCHEZ, Susana García. Destinos turísticos inteligentes. Harvard Deusto Business Review, p. 58-66, 2013.

BAIDAL, Josep Ivars; MONZONÍS, F. Javier Solsona; SÁNCHEZ, David Giner. Gestión turística y tecnologías de la información y la comunicación (TIC): rl nuevo enfoque de los destinos inteligentes. **Documents d'Anàlisi Geogràfica**, v. 62, n. 2, p. 327, 2016. https://doi.org/10.5565/rev/dag.285

BARDIN, Laurence. Análise de conteúdo. São Paulo: Edição 70, 2011.

BOUSKELA, Mauricio; CASSEB, Márcia; BASSI, Silvia; DE LUCA, Cristina; FACCHINA, Marcelo. **Caminho para as** *smart cities***:** da gestão tradicional para a cidade inteligente. Brasília: Banco Interamericano de Desenvolvimento, 2016.

BRANDÃO, Mariana. **Understanding smart tourism destination:** evidence from a smart city project implementation in an international tourism destination. Thesis (PhD in Administration) presented to Escola Brasileira de Administração Pública e de Empresas. Fundação Getulio Vargas, Rio de Janeiro, 2017.

BRANDÃO, Mariana; JOIA, Luiz Antônio; TELES, Adonai. Destino turístico inteligente: um caminho para transformação. *In:* SEMINÁRIO DA ANPTUR, 13., 2016, São Paulo. **Anais** [...]. São Paulo: ANPTUR, 2016. p. 1-16.

BRASIL. Ministério do Turismo, FGV, SEBRAE. Índice de Competitividade do Turismo Nacional: relatório Brasil 2015. 2015. Available at: https://www.turismo.gov.br/sites/default/turismo/o\_ ministerio/publicacoes/downloads\_publicacoes/Relatorio\_Brasil\_2015\_WEB.pdf. Access on: Mar. 5, 2018

BUHALIS, Dimitrios; AMARANGGANA, Aditya. Smart tourism destinations enhancing tourism experience through personalisation of services. In: Tussyadiah, Iis; Inversini, Alessandro (Eds.) **Information and Communication Technologies in Tourism 2015**. Springer, Cham, 2015. https://doi.org/10.1007/978-3-319-14343-9\_28

BÚZIOS (Município). Lei nº 990, de 13 de setembro de 2013. Cria o Conselho Municipal de Turismo de Búzios. Available at: htpp: https://sapl.armacaodosbuzios.rj.leg.br/media/sapl/public/ normajuridica/2013/434/lo\_990-2013\_sapl.pdf. Access on: Sep. 20, 2020.

CAMARGO, Aspásia. Cidades inteligentes e mobilidade urbana. Depoimentos de CAMARGO, Aspásia; SILVA, Alberto Gomes. Cadernos FGV Projetos, ano 9, n. 24, jun/jul de 2014. ISSN 19844883

CAPUTO, Francesco; WALLETZKY, Leonard; STEPÁNEK, Petr. Towards a systems thinking based view for the governance of a smart city's ecosystem. **Kybernetes**, 2018, v. 48, n. 4. https://doi.org/10.1108/K-07-2017-0274

CARAGLIU, Andrea; BO, Chiara Del, NIJKAMP, Peter. Smart cities in Europe. Journal of Urban Technology, v. 18, n. 2, p. 65-82. 2011. https://doi.org/10.1080/10630732.2011.601117

CURY, Mauro José Ferreira; MARQUES, Josiel Alan Leite Fernandes. A cidade inteligente: uma reterritorialização. Redes, v. 22, n. 1, p. 102-17, 2016. https://doi.org/10.17058/redes.v22i1.8476

DAMERI, Renata Paola; BENEVOLO, Clara. Governing smart cities: an empirical analysis. Sage Journals, v. 34, n. 6, p. 693-707, 3 ago. 2016. https://doi.org/10.1177/0894439315611093

DOMARESKI-RUIZ, Thays Cristina; GÂNDARA, José Manoel; CHIM-MIKI, Adriana Fumi. Destinos Turísticos como territórios de inovação: análise dos vetores de competitividade urbana a luz dos pressupostos sugeridos pela União Europeia, por meio do relatório State Of European Cities. **Turismo Visão e Ação**, Univale. v. 17, n. 3, 2015. https://doi.org/10.14210/rtva.v17n3.p758-784

DURAN, C. Governance for the Tourism Sector and its measurement. UNWTO Statistics and TSA Issue Paper Series, 2013. https://doi.org/10.18111/9789284415632

DWYER, Larry; KIM, Chulwon. Destination competitiveness: determinants and indicators. **Current Issues in Tourism**, v. 6, n. 5, 2003. https://doi.org/10.1080/13683500308667962

ENEL SOLUÇÕES. Enel – Projeto Cidade Inteligente. 2011. Available at: https://www.enelsolucoes. com.br/. Access on: Apr. 5, 2018.

FRATUCCI, Aguinaldo C. Participação comunitária na gestão do turismo nos munícipios do Estado do Rio de Janeiro: Análise do processo do PNMT. *In:* DELAMARO, Mauricio; BARTHOLO, Roberto; BADIN, Luciana (org.). **Turismo e Sustentabilidade no Estado do Rio de Janeiro**. Rio de Janeiro: Ed. Garamond, 2005.

GIFFINGER, Rudolf; FERTNER, Christian; KRAMAR, Hans; KALASEK, Robrt; PICHLER-MILANOVIĆ, Nataša; MEIJERS, Eevert. **Smart cities:** ranking of European medium-sized cities. Vienna, Austria: Centre of Regional Science (SRF), Vienna University of Technology, 2017.

GOMES, Ewerton Lemos; GÂNDARA, José Manoel; IVARS-BAIDAL, Josep. É importante ser um destino turístico inteligente? A compreensão dos gestores públicos dos destinos do Estado do Paraná1. **Revista Brasileira de Pesquisa em Turismo**, v. 11, p. 503-536, 2017. https://doi.org/10.7784/rbtur.v11i3.1318

GOV.BR. Saiba o que torna uma cidade um Destino Turístico Inteligente. 2023. Available at: https:// www.gov.br/turismo/pt-br/assuntos/noticias/saiba-o-que-torna-uma-cidade-um-destino-turisticointeligente. Access on: Mar. 18, 2024.

GRETZEL, Ulrike; SIGALA, Marianna; XIANG, Zheng; KOO, Chulmo. Smart tourism foundations and developments. **Electron Markets**, v. 25, n. 3, p. 179-188, set. 2015. https://doi.org/10.1007/s12525-015-0196-8

HARRISON, C.; ECKMAN, B.; HAMILTON, R.; HARTSWICK, P.; KALAGNANAM, J.; PARASZCZAK, J.; WILLIAMS, P. Foundations for smarter cities. **IBM Journal of Research and Development**, v. 54, n. 4, p. 1-6, jul./ago. 2010. https://doi.org/10.1147/JRD.2010.2048257

IESE. Cities in Motion. Business School. Navarra: University of Navarra. Center for Globalization and Strategy, 2015.

IESE. Cities in Motion. Business School. Navarra: University of Navarra. 2018. Disponível em: https:// citiesinmotion.iese.edu. Acesso em: 20 fev. 2018.

INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA (IBGE). **Armação dos Búzios** – Panorama. 2018. Available at: https://cidades.ibge.gov.br/brasil/rj/armacao-dos-buzios/panorama. Access on: Oct. 20,. 2018.

INTELLIGENT COMMUNITY FORUM. **Comunidades inteligentes certificadas**. 2023. Available at: https://www.intelligentcommunity.org/certified\_intelligent\_communities. Access on: Mar. 18, 2024.

KRONEMBERGER, Thais Soares; MEDEIROS, Amanda Cristina; DIAS, Anderson Felisberto. **Conselhos Municipais:** institucionalização e funcionamento. Gestão Social e Conselhos Gestores, org. Fernando Guilherme Tenório e Thais Soares Kronemberger. Rio de Janeiro: FGV, 2016.

MOREIRA, Bruno. Cidades inteligentes: o futuro do *smart grid* no Brasil. **O Setor Elétrico**, edição 105, out. 2014. Available at: https://www.osetoreletrico.com.br/cidades-inteligentes-o-futuro-do-smart-grid-no-brasil/. Access on: Mar. 06, 2018.

NAM, Taewoo; PARDO, Theresa A. Conceptualizing smart city with dimensions of technology, people, and institutions. *In:* Annual International Digital Government Research Conference on Digital Government Innovation in Challenging Times, 12.; 2011, New York. **Proceedings...** New York: ACM Press, 2011. p. 282-291.

NESTA. Rethinking smart cities from the ground up. 2015. Available at: https://www.nesta.org.uk/ sites/default/files/rethinking\_smart\_cities\_from\_the\_ground\_up\_2015.pdf. Access on: Jan. 02, 2018.

PEREZ, Xerardo Pereiro. Turismo Cultural: uma visão antropológica. Tenerife: Aca y Pasos, 2009.

POGGI, Marta. **Destino turístico inteligente:** como começar? 2021. Available at https:// agentenoturismo.com.br/wp-content/uploads/2022/06/ebook-DTI-final.pdf. Access on: Mar. 18, 2024.

PROLAGOS. Estação de Tratamento de Esgoto de Búzios recebe novo tratamento. 2019. Available at: https://www.prolagos.com.br/2019/07/estacao-de-tratamento-de-esgoto-de-buzios-recebe-novo-equipamento/. Access on: Jul. 04, 2019.

REDES INTELIGENTES BRASIL. Smart Grid. 2018. Available at: https://redesinteligentesbrasil.org.br/. Access on: Feb. 4, 2019.

SCHAFFERS, Hans, KOMNINOS, Nicos, PALLOT, Marc, TROUSSE, Brigitte; NILSSON, Michael; OLIVEIRA, Alvaro. Smart cities and the future internet: towards cooperation frameworks for open innovation. In: DOMINGUE, John; GALIS, Alex; GAVRAS, Anastasius; ZAHARIADIS, Theodore; LAMBERT, Dave; CLEARY, Frances; DARAS, Petros; KRCO, Srdjan; MÜLLER, Henning; LI, Man-Sze; SCHAFFERS, Hans; LOTZ, Volkmar; ALVAREZ, Federico; STILLER, Burkhard; KARNOUSKOS, Stamatis; AVESSTA, Susanna; NILSSON, Michael. **The Future Internet. FIA 2011. Lecture Notes in Computer Science**. v. 6656. Berlin, Heidelberg: Springer, 2011. https://doi. org/10.1007/978-3-642-20898-0\_31 SEGITTUR. Turismo e Innovación. Destinos Turísticos Inteligentes. 2013. Available at: https://www. segittur.es/en/smart-tourism-destinations/. Access on: Apr. 24, 2020.

SILVA, Jôzy Cleide; MENDES FILHO, Luiz Augusto Machado. A influência das tecnologias da informação e comunicação nos destinos turísticos inteligentes. *In:* Seminário de Pesquisa do Centro Ciências Sociais da Universidade Federal do Rio Grande do Norte, 2016, Natal. **Anais [...]**. Natal: CCSA/UFRN, 2016. p. 1-12.

ŠIURYTĖ, Aidana; DAVIDAVICIENE, Vida. An analysis of key factors in developing a smart city. Mokslas - Lietuvos ateitis, v. 8, n. 2, p. 254-262, 2016. https://doi.org/10.3846/mla.2015.900

STEINERT, Kurt W.; MAROM, Revital; RICHARD, Philippe; VEIGA, Baspar; WITTERS, Louis. Making cities smart and sustainable. *In:* DUTTA, Soumitra (Ed.). **The Global Innovation Index 2011:** accelerating growth and development. Fontainebleau: INSEAD, 2011. p. 87-96.

STRAPAZZON, Carlos Luiz. Convergência tecnológica nas políticas urbanas: pequenas e médias cidades inteligentes. **O governo eletrônico e suas múltiplas facetas**, Zaragoza. p. 265-284. 2010. Available at: https://www.egov.ufsc.br/portal/sites/default/ files/lefis\_10.pdf#page=265. Access on: Apr. 24, 2020.

TRIBUNAL DE CONTAS DO ESTADO DO RIO DE JANEIRO (TCE-RJ). Estudos Socioeconômicos dos Municípios do Estado do Rio de Janeiro. Armação de Búzios. Rio de Janeiro: TCE-RJ, 2016.

TRENTIN, Fábia. Governança turística em destinos brasileiros: comparação entre Armação dos Búzios/RJ, Paraty/RJ e Bonito/MS. **PASOS - Revista de Turismo y Patrimonio Cultural**, Universidad de La Laguna v. 14, n. 3, p. 645-658, 2016. ISSN 1695-7121

TURISRIO. Companhia de Turismo do Estado do Rio de Janeiro. Plano Diretor de Turismo. Available at: https://www.turisrio.rj.gov.br/projetos.asp. Access on: Mar. 29, 2017.

VALLS, Josep-Francesc. Gestão integral de destinos turísticos sustentáveis. Rio de Janeiro: FGV Editora, 2006.

VELASCO, María. Gestión de destinos, ¿gobernabilidad del turismo o gobernanza del turismo? *In:* COLOQUIO DOCTORAL DE TURISMO Y OCIO ESADE, 6., 2008, Madrid. **Anais** [...]. Madrid: ESADE, 2008. p. 1-19.

VELASCO, María; TRENTIN, Fábia. Evolução da política de turismo no Brasil e Espanha: enfoque nas redes de atores. *In:* CONGRESO INTERNACIONAL EN GOBIERNO, ADMINISTRACIÓN Y POLÍTICAS PÚBLICAS GIGAPP-IUIOG, 5., 2014, Madrid. **Anais** [...]. Madrid: GIGAPP-IUIOG, 2014. p. 1-26.

VELASCO, María. Governanza turística: ¿Políticas públicas innovadoras o retórica banal? Caderno Virtual de Turismo, Edição Especial: Hospitalidade e Políticas Públicas em Turismo, Rio de Janeiro, v. 14, supl. 1, s.9-s.22, nov. 2014.

WEISS, Marcos Cesar; ERNARDES, Roberto C.; CONSONI, Flavia. Cidades inteligentes: casos e perspectivas para as cidades brasileiras. *In:* CONGRESSO LATINO-IBEROAMERICANO DE GESTÃO DE TECNOLOGIA, 15., Porto Alegre. **Anais** [...] Porto Alegre: ALTEC, 2013.

Xavier, Tiago R. **Governança dos atores locais em um cluster turístico:** a Associação de Produtores de Vinhos Finos do Vale dos Vinhedos (APROVALE). 2016. 236 f. Thesis (PhD in Administration) — Universidade Federal de Santa Maria, Santa Maria, 2016.

YIN, Robert K. Estudo de caso: planejamento e métodos. 4. ed. Porto Alegre: Bookman, 2001.

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