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INFORMATION AND SCIENTIFIC DATA, STUMBLES OF TOURISM MANAGEMENT AND DEVELOPMENT (THE CASE ON TOURIST REGION OF THE STATE OF PIAUÍ IN BRAZIL)

Abstract. *Information and scientific data are part of the tourism management and development process. However, the management of a tourist destination depends on integrated tourism policies. This study explains the existing dichotomies in planning and managing tourist destinations, specifically in raising information and data for the generation of local, regional, and national tourism knowledge. The research was carried out based on a documental analysis of data published by the Brazilian government and the "COVID-19 Business Survey of Impacts on the Tourism Industry in Brazil" report conducted by the Brazilian Network of Tourism Observatories (RBOT) and the Piauí Tourism Observatory (OTPi). As a result, the study presents eight findings identified in government research in Brazil, and the tourist territory Polo Costa do Delta. The findings corresponded to the analysis categories "Lack of Specificity," "Transparency," "Update," "Lack of skilled labor," "Poor coordination," "Lack of Planning," and "Centralized decision-making," elucidated at the national and regional level, dedicated to the tourist region of the State of Piauí. The dichotomies existing in the process of planning and managing tourist destinations in Brazil about getting reliable information and data reinforce the importance of decentralized actions, of the national scope of RBOT, as well as the valorization of regional observatories that contribute to the cooperation, integration, and formation of a smart tourist destination.*

Keywords: *Data management, Tourism, Piauí, Tourism Observatories, Public Policies.*

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ИНФОРМАЦИЯ И НАУЧНЫЕ ДАННЫЕ В ИССЛЕДОВАНИИ ПРОБЛЕМ УПРАВЛЕНИЯ И РАЗВИТИЯ ТУРИЗМА (НА ПРИМЕРЕ ТУРИСТСКОЙ ТЕРРИТОРИИ ШТАТА ПИАУИ, БРАЗИЛИЯ)

Процесс управления туризмом и развития туристских дестинаций во многом опирается на информацию и научные данные, а также зависит от комплексной туристической политики. Данное исследование направлено на изучение существующей раздвоенности в планировании и управлении туристическими дестинациями, особенно в отношении сбора информации и данных для обобщения локальной, региональной и национальной систем знаний о туризме. Исследование проведено на основе контент-анализа данных, опубликованных правительством Бразилии, и отчета «Исследование воздействия COVID-19 на индустрию туризма в Бразилии», проведенного Бразильской сетью туристических институтов (RBOT) и туристическим институтом Пиауи (OTPi). В результате в исследовании представлены восемь ключевых положений, выявленных в ходе правительственного исследования в Бразилии и на туристической территории Поло-Коста-ду-Дельта. Анализ проводился на основании данных национального и регионального уровня, а также в контексте туристического региона штата Пиауи, по выделенным категориям: «Отсутствие специфики», «Прозрачность», «Обновление», «Отсутствие квалифицированной рабочей силы», «Плохая координация», «Отсутствие планирования» и «Централизованное принятие решений». Выявленные дихотомии в процессе планирования и управления туристическими направлениями в Бразилии относительно получения надежной информации и данных, обуславливают необходимость и важность децентрализованных действий национального масштаба Бразильской сети туристических институтов, а также подчеркивают ценность региональных наблюдательных центров, которые способствуют сотрудничеству, интеграции, и формированию устойчивых туристских дестинаций.

Ключевые слова: *управление данными, туризм, Пиауи, туристические институты (обсерватории), государственная политика.*

Introduction

Tourism is considered a complex system derived from the conjunction of various productive industries because it consists of many economic and social interactions. In this sense, it brings the challenge of getting data and information to measure direct and indirect activities in the industry, which determine the existing dynamics (Cunha, 2013; Luque Gil, Zayas Fernández & Caro Herrero, 2015; Sederati, Santos & Pintassilgo, 2019). Therefore, for developing activities in tourism is fundamental the knowledge of the current reality and the past, aiming at understanding the indicators of trends variables, whether economic, legal, social, cultural, technological, or environmental (Var & Gunn, 2002).

In the Brazilian reality, regarding public tourism management, the data and information are meager and discontinuous (Santos, 2017); there is no periodic update, and sometimes specific and reliable data are lacking. So the safety for investors and development of efficient and effective planning is compromised, generating an environment of difficulty for managers to deal with uncertainties and transformations, mainly those from the market.

Thus, this article proposes to explain the dichotomies, gaps existing in the process of planning and management of tourist destinations, especially in getting reliable information and data, generation of local, regional, and national tourist knowledge (considering the breadth of this research), and the influences generated to the public management of tourism. In the Brazilian case, they are characterized by inefficiency, compromising efforts in time and resources, to the tourism development, especially in a pandemic period of COVID-19. Thus, it seeks to approach the study developed at the national level – Brazil – by the Brazilian Network of Tourism Observatories (Rede Brasileira de Observatórios do Turismo – RBOT) and its relevance for the regional management of tourism in the State of Piauí.

To this end, we used an investigation methodology based on getting information in bibliographic and documentary sources, crossing them with updated data from the RBOT research. In addition to considering the problem investigated within the tourist territory called Polo Costa do Delta (Fig. 1), the northern region of the Brazilian state of Piauí, which allowed a better understanding of the lack of specific data on tourism, the impacts of COVID-19, and the usefulness of research for local tourism planning and development.

Thus, the relevance of research agencies, such as tourism observatories, in obtaining and organizing data and information is evidenced, designated as a tourist intelligence tool (Franch and Contreras, 2013). which, by tendency, are characterized by stability and constancy in the dissemination of the perceived tourist reality in a given period and are also understood as a management tool to assist the planning and implementation processes of public policies, since it generates and concentrates quantitative and qualitative data and information from tourist destinations.

In the current reality, which imposes health and mobility restrictions due to the global pandemic of Coronavirus (Sars-CoV-2), tourism in Brazil and other countries has suffered profound economic and social impacts (Souza, 2021). However, as in the pre-pandemic moment, it still lacks reliable and accurate data on the industry in the period that comprises the years 2020 and 2021, considering that the research developed by RBOT has a specific period of 2020.

From this theme, all theoretical and exemplification arguments are developed, in which empirical investigation is supported, defining the problem of research and the general hypothesis (Table 1).

Thus, this article questions the possibility of efficiency and effectiveness being qualities of the management of tourist destinations in Brazil, considering that the absence of accurate information and data and the continuous frequency, planning, and territorial planning of tourism are impaired. It proposes a conceptual framework based on knowledge management in tourist destinations, which underlies the analysis of the data obtained by the RBOT research in 2020.
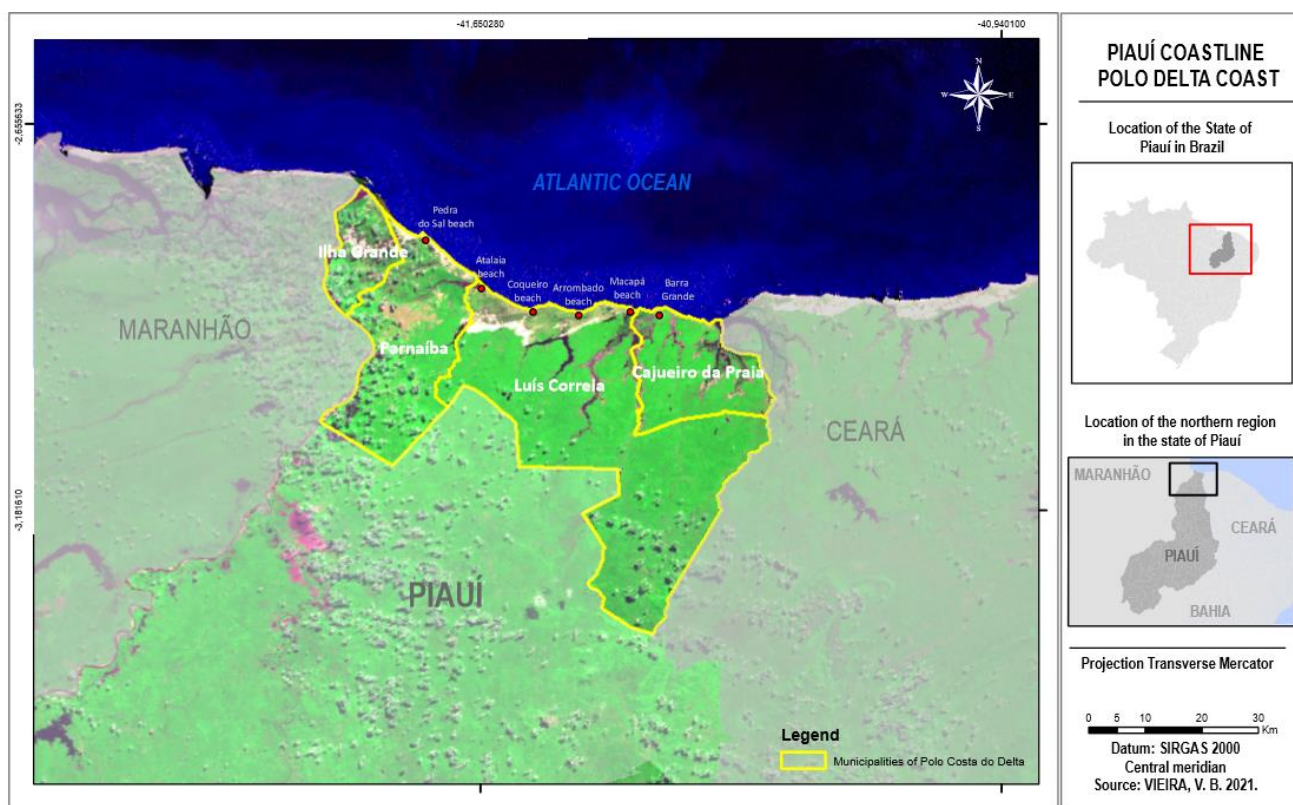
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Figure 1 – Location of the municipalities of the Polo Costa do Delta[1]

Table 1 – Problem and central hypothesis

Departure Questions (Problem)	What are the dichotomies in planning and managing tourist destinations in Brazil about obtaining reliable information and data? In the SARS-CoV-2 pandemic in Brazil, what is the relevance of RBOT research in national and local tourism (Polo Costa do Delta)?
General hypothesis	Comment: The current Brazilian government, as widely referenced in several media in Brazil and other countries, has authoritarian and interventionist characteristics, thus seeking to centralize decisions, hurting the federative pact and, possibly, the synergy in the tourism management of the territory. This characteristic is reflected in the discontinuity and breadth of institutional research in Brazilian tourism, in the context of the SARS-CoV-2 pandemic, in the insecurity of investments, and the public tourism management at the municipal level. Initiatives such as that of RBOT to investigate tourism dynamics in 2020 – the first year of the pandemic – is presented as a decentralized action of national scope and, therefore, of more excellent reliability in exposing the reality of Brazilian tourism. Hypothesis: RBOT's research has, in this first year of operation, a medium impact on the context of Brazilian tourism by bringing together the territory from its state centers, including all federal institutions, and thus generating the necessary cohesion for the tourism management of the territory of Brazil in the pandemic and post-pandemic period of Sars-Cov-2.

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[1] Source: Vieira (2021)

Tourism Destination Management:
### the relevance of tourism observatories

The technological advances of the last three decades have brought to the world several contexts and new paradigms (Takeushi & Nonaka, 2008), fundamentally mainly based on communication tools (Perinotto et al., 2017). Such tools, such as social *networks and media of* significant data traffic – the best known: the Internet – provided sufficient subsidies to generate and manage current knowledge (Vargas Sanchez & Moreno Dominguez, 2005; Piguave-Mero, 2018), assisting in the planning and management processes of tourist destinations.

However, the communication tools, which use information and communication technologies, are not enough to manage a tourist destination that wishes to be recognized as smart (Buhalis, 2015) because they must be promoted with data and information. Which, after treatment and analysis (Parente, 2003; Soares T. C., Soares J. C. & Soares S. V., 2019; Marujo, 2013), support the situational diagnosis of the destination, as well as indicate the present and future scenarios and possible solutions to the identified problems and strategies to maximize local potential.

Santos (2017) warns that data and information on Brazilian tourism are not accurate, given the breadth of the territory (many uncontrolled border sections) and informational lag arising from the meager and spaced research on the dynamics of the tourist market. In addition, there are three central problems: lack of specificity, reliability, and updating. However, the Ministry of Tourism, in partnership with the Fundação Instituto de Pesquisas Econômicas (FIPE), and the Instituto Brasileiro de Geografia e Estatística (IBGE) strive to maintain the statistical update of tourism, despite covering only a few tourist destinations in the Brazilian territory.

The organizational and financial difficulties of the Ministry of Tourism in Brazil have been increasing in the last three years due to the reduction of public funds in the federal administration budget (Figures 2 and 3), which justifies the lack of financial resources to subsidize the research

structures necessary to monitor the socio-economic performance of the tourism industry in the country.
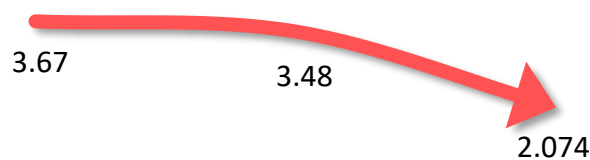
Fig. 2 – Decline in the budget of the Ministry of Tourism (billions of reals)
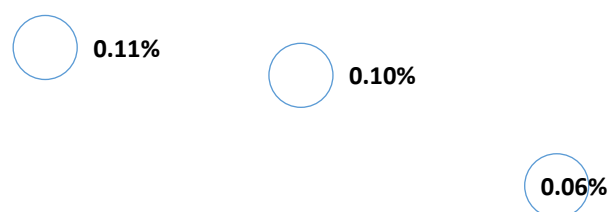
Fig. 3 – Impact of the Ministry of Tourism on the Federal Budget (%)

Thus, it is essential to regionalize tourism research, reducing the territorial breadth of data and information collection and, fundamentally, decreasing operational costs. In this way, it would cover the entire Brazilian territory and, also, the relevance of the industry in the regional and national economy would be established.

As mentioned in the National Tourism Plan (Brazil, 2018), the regionalization of research already occurs through tourism observatories. In Brazil, the vast majority of observatories are linked to a public institution, characterizing them as elements of public policies that "encourage the local destination to recognize the importance of tourism as the main activity" (Alvares, Santos & Perinotto, 2020, p. 147). The observatories structure and tend to keep up-to-date a database and information, allowing "systematic and regular measurements, in addition to the analysis of

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tourist activity" (Alvares, Santos & Perinotto, 2020, p. 148).

In this sense, from the Carta de Curitiba, formalized at the Paraná Meeting of Tourism Observatories in 2017, the Brazilian Network of Tourism Observatories - RBOT (Salgado et al., 2020) is created. The content of the Carta de Curitiba reinforced the need to unify efforts and promote discussions regarding the production of tourism information and data from the states and main tourist destinations. According to Tavares (cited in Vieira, 2020, p. 174), RBOT was created "to promote works aimed at producing statistical data, studies, and market intelligence for the Brazilian tourism industry".

The initiative of the observatories network, whether in Brazil or other tourist destinations, allows the destinations to be managed strategically, as idealized by Moreira (2013), who conceives the strategic character as the ability to manage the available resources defining a mode of action. However, management requires the mastery of a set of technological tools that enable destinations that wish to be recognized as smart. The modernization of cities – from the perspective of the use and occupation of spaces or mobility and in the daily orientation of urban dynamics – optimize visitors' and residents' experiences. In addition to this perception, Costa (2014) shows that it is essential to plan the necessary structures and operationalize actions, competent managers, and human capital.

Brazilian tourist destinations still lack the infrastructure and managers attentive to the importance of tourism as a driving force of the economy, which represents even more significant challenges for the initiatives of the observatories. According to the CIMI - *Cities in Motion* Index (Santos and Inácio, 2018, p.291), ten indicators of a smart destination are considered:

1. **Investment in Human Capital:** cultural production, population education indexes, and scientific research.

2. **Social Cohesion:** quality of the health system, immigration, security, social inclusion, policies to support the elderly, among others.

3. **Economy:** encouraging innovation and local development.

4. **Efficiency of public management:** implementation of new management and administration models.

5. **Governance:** establishment of channels of population participation in the planning and supervision processes.

6. **Mobility and transport:** ease of access to public services, integration between modals and transport in the urban environment.

7. **Environment:** support for alternative energy sources, water management, combating pollution, and other sustainability policies.

8. **Urban planning:** development plans that focus on compact, accessible, and interconnected cities.

9. **International connections:** international recognition, an incentive to tourism, and external investments.

10. **Technology:** implementation and development of well-structured information and communication systems.

Pearce (2015) reinforces the idea that the management of a tourist destination is done through the shared management of information, research, and planning. Therefore, it is understood that centralizing management tends to inhibit tourism development because only a few have information and tourist knowledge, something perceived in tourism-inducing municipalities – amplified by the impacts of the SARS-CoV-2 pandemic.

The global pandemic of SARS-CoV-2 brought to light the relevance of accurate data and information, considering that the first half of 2020 understood the size of the health problem. Unfortunately, in this scenario, Brazil proved incapable of providing the necessary information for local and regional public actions and policies, mainly due to the federal government's denialist actions and misguided policies (Lohmann et al., 2021; Caponi, 2020; Rezende Filho, 2020).

Thus, actions such as obtaining, organizing, and systematically treating data and information to create knowledge and collective intelligence

(Figure 4) are fundamental and underpin the development of any tourist destination (Peña, 2013). Moreover, in the pandemic case of Brazil, actions of greater effectiveness and efficiency could have been generated, as well as adding value to the country's tourism image.
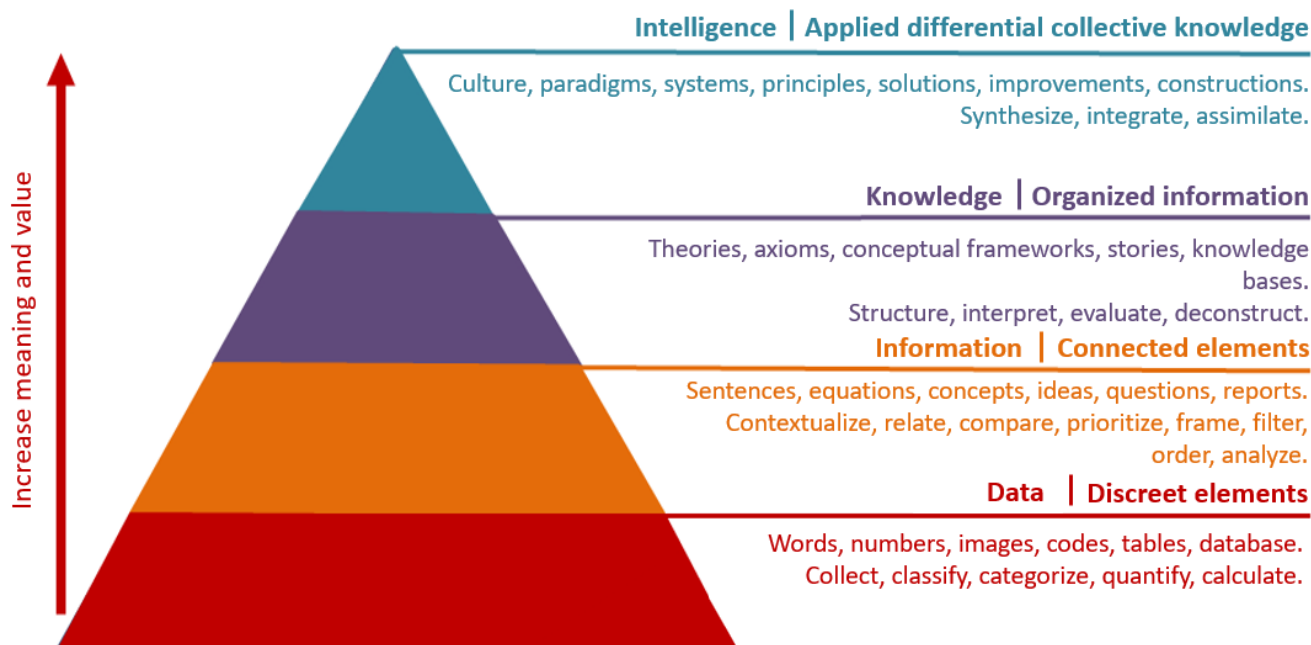
Fig.4 – Transformation of data into the collective knowledge[2]

Territorial observation of continuous character is necessary because territories are considered complex systems in constant evolution and present different possibilities of future scenarios (Roux & Feyt, 2011).

Therefore, the observation process should meet the continuous flow of data and information of understanding and monitoring of the tourist reality (Sede-Marceau & Moine, 2009), and according to Bregolin (2018), comprises six main stages (Fig. 5).
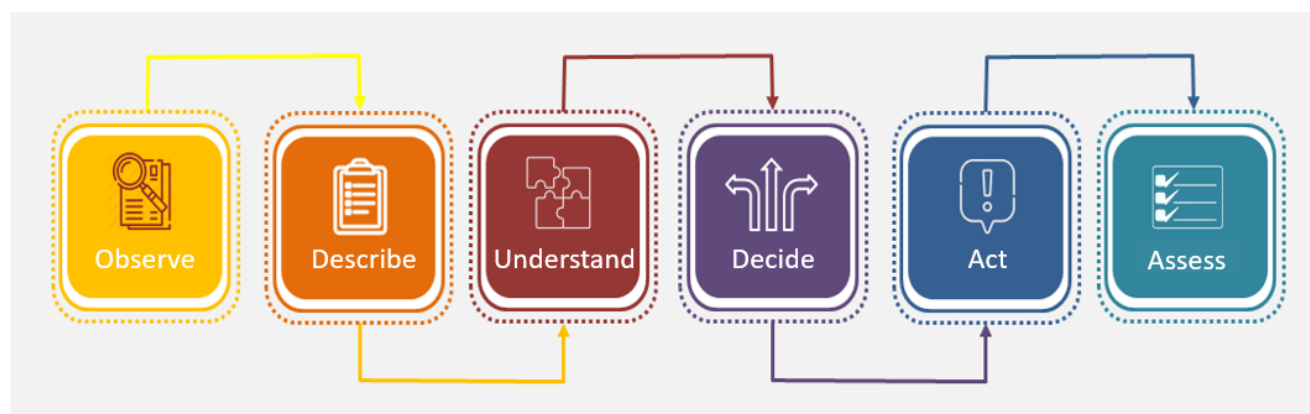
Fig. 5 – Steps to the continuous flow of information

The organization of data and information to the generation of tourist knowledge, especially in tourist destinations with the highest flow of visitors, such as France and the United States, use observatories as a safe source of information that allows the adoption of strategies and decision-making processes that direct tourist destinations to the anticipation of solutions before the other.

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Thus, for example, in the SARS-CoV-2 pandemic, practical solutions in other countries to mitigate the impacts were carried out earlier when compared to Brazil, such as health protocols, the acquisition of vaccines, and the immunization process. Thus, providing them with the recovery of tourist flows more quickly and, consequently, the resumption of the economic growth.

Methodological design

This paper presents as a central theme the importance of continuous data and information for a tourist destination. In this sense, the main instrument for collecting and analyzing the territory's information of institutional structures called tourism observatories stands out as the main instrument for collecting and analyzing the territory's information. Furthermore, the observatories have proven to be an efficient instrument in monitoring the dynamics of various sectors of society and the economy and other significant areas such as technology, the environment, and laws.

Planning the research, developing scientific research, and being attentive to the necessary steps and the methodological norms indicated for the form and content allow the work, mainly to the results solidity and reliability (Borges, 2017). Thus, with the design of the planning and execution process of the investigation (Figure 6), the research plan was refined, directed to the focus/object of study, highlighting the definition of the research instruments, the delimitation of the universe and sample, and techniques of analysis of the obtained data and information.

To define the methodological scheme, we sought the guidelines of the methodology structured by the RBOT for the national research because it was understood that the research at the local level should take place in the same parameters, which, in this case, had been operationalized by the Piauí Tourism Observatory (OTPi).

The research developed by RBOT and OTPi (COVID-19's Business Impact Survey on the Tourism Industry in Brazil) brought information neglected by official tourism institutions in Brazil. Furthermore, it addressed the impact of COVID-19 on the scope of tourism companies registered in the CADASTUR of the Ministry of Tourism. Thus, it was possible to compare the data and information at the national level published by the Ministry in the same period and from the local perspective of the Polo Costa do Delta territory, identifying the gaps in the tourist management of the territory.

Therefore, the research method was qualitative, as it was based on secondary and primary sources – in this case, through the questionnaire survey applied by RBOT and OTPi.

Observing the objective and problem of the research outlined, based on the investigation of the consulted bibliography, the categories of analysis were defined in two areas of this research. The first is regarding data on tourism in Brazil, which showed three categories based on Santos (2017) (Table 2).

The second area of the research is explained from the perspective of managing the tourist territory (Polo Costa do Delta) in four categories of analysis (Table 3).

Table 2 – Categories of analysis for the study area "Data on tourism in Brazil"[3]

Analysis category	Sub-category	Reference
Lack of Specificity	Generalizations	Santos (2017), Filho (2002), Antolini and Gracini (2020), Brunt, Horner and Semley (2017)
Transparency	Open Data	Santos (2017), Mendes, Bahl and Feger (2017), Leal et al. (2021)
	Misstep with the tourist market	Vilela and Costa (2020)
Update	Frequency	Santos (2017)

[3] Source: Adapted from Santos (2017)

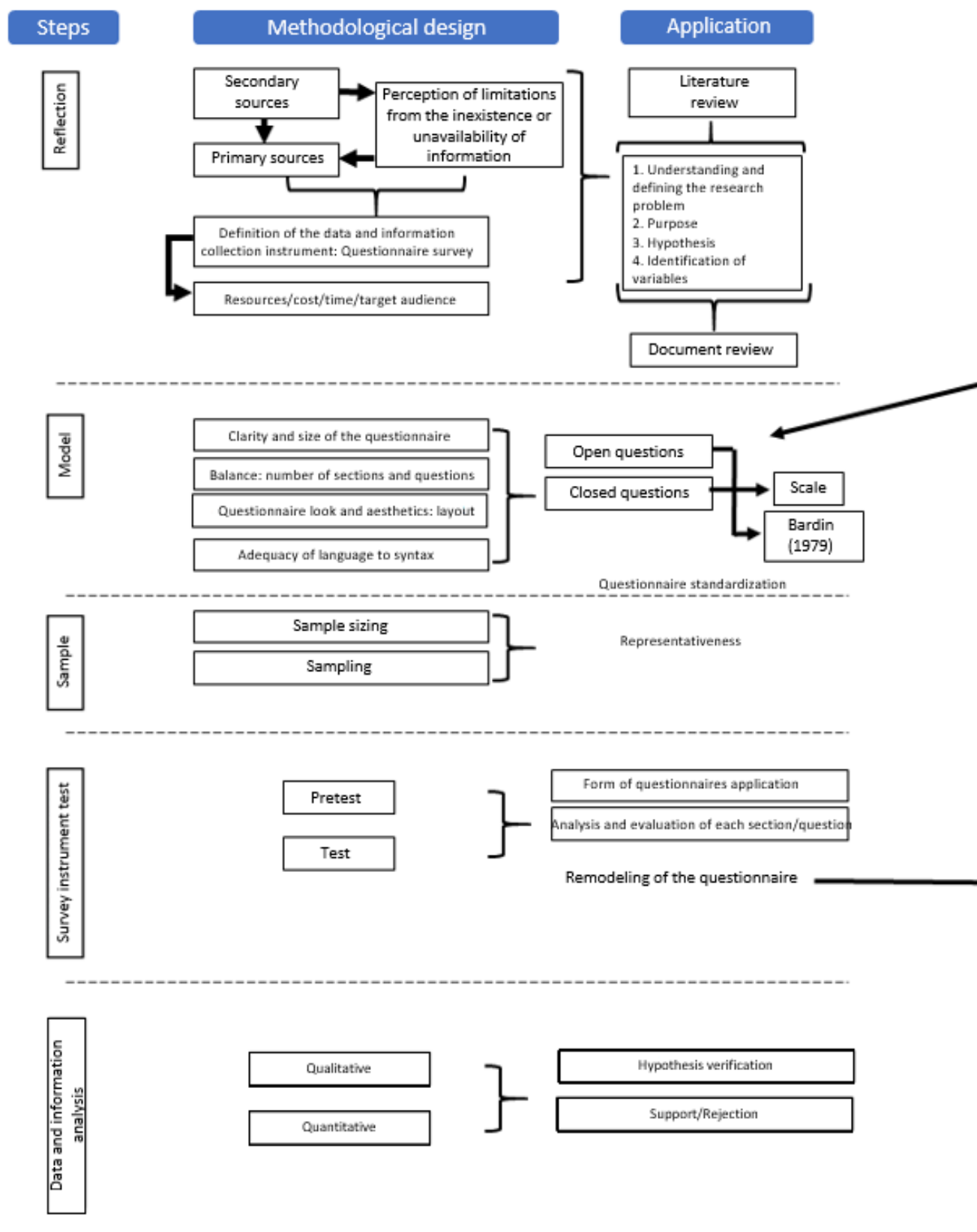*Fig. 6 – Methodological model of the research[4]*

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[4] Developed by the authors (2021) based on RBOT (2020) and Borges (2017)

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*Table 3 – Categories of analysis for the study
area "Management of the tourist territory
Polo Costa do Delta"*

Categories of analysis	Reference
Lack of skilled labor	Araújo & Dredge (2012), Raj (2008)
Poor coordination	Gretzel, et al. (2015), Bekteshi & Bekteshi (2017)
Lack of Planning	Camilo & Bahl (2017), Mecca & Gedoz (2020), Var & Gunn (2002), Barreto (2005), Hall (2004)
Centralized decision-making	Borges (2014), Martins & Silveira (2017)

Therefore, to highlight the gaps in the regular research of national tourism and the Polo Costa do Delta territory, we sought primary data in the collection performed by RBOT and OTPi, which occurred between January and April 2020. To this end, the universe of national research and the territorial part of the Piauí coast was understood (Table 4).

*Table 4 – Tourism companies registered
in CADASTUR – MTur[5]*

Scope	Number of companies in the tourism industry (approximate number)
National (Brazil)	125,414
Piauí	1,176

From the universe of research, delimited by CADASTUR – Register of Tourism Companies in Brazil of the Ministry of Tourism, the percentage of the sample was defined (Table 5), which was characterized as non-probabilistic for convenience.

Therefore, the analyses developed were structured from a content analysis perspective (Bardin, 2011). The criteria of organization of the analysis (pre-analysis, material exploration, and the treatment of the results) were applied

initially. The treatment of results is understood as the process of coding and inference, allowing categorization and interpretation (Table 7 and 8).

Table 5 – Sample of RBOT and OTPi research[6]

Scope	Number of		Percentage (concerning the number of companies in CADASTUR)
	companies	questionnaires	
National (Brazil)	4,200	4,921	3.9%
Piauí (Polo Costa do Delta)	41	41	0.03%

Results

1. The Context of Research in Brazil and Polo Costa do Delta. In the context of territorial tourism management, data and information are fundamental to subsidize a planning process that reduces uncertainties arising from the market and maximizes actions that strengthen the competitiveness of a tourist destination.

The ability of a tourist destination to compete will engage its social, economic, political, cultural, technological, and environmental forces (Ritchie & Crouch, 2003 apud Borges, 2017). Therefore, it is "irrefutable that tourist destinations need to be managed in a strategic way" (Moreira, 2013, p. 119).

In this sense, throughout the period surveyed (January to April 2020), the Polo Costa do Delta as a territory of tourism interest, managed by the government of the State of Piauí and municipalities of Ilha Grande, Parnaíba, Luís Correia, and Cajueiro da Praia, did not produce organized, accurate, and updated information on the dynamics of local tourism. At the national level, the country has set itself in more generic research that encompassed very few variables of the tourist context, such as entries and exits of foreign tourists, length of stay, average expenditure, among others. Such research is based on the construction of a diagnosis based on tourists, leaving the understanding of the impacts of COVID-19

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[5] Source: CADASTUR, 2021
[6] Source: Adapted from RBOT (2020)

restricted to companies in the industries of travel agencies, tour operators, and lodging. In this sense, they no longer cover other vital industries of Brazilian tourism, thus qualifying the research due to lack of specificity and updating.

In times of the COVID-19 pandemic, the delay in obtaining, analyzing, and publishing the data has caused uncertainties mainly in decision-making for actions during the scarcity period and mainly to plan the safe recovery of activities. Moreover, the scenario described reflects the low competitive capacity of tourism at the international level.

The research results show that the data gap is two years, as in the case of the Statistical Yearbook of Tourism, and up to four years when the Annual Survey of Economic Conjuncture of Tourism is observed (Table 6).

Table 6 – Official Surveys of Brazilian Tourism[7]

Search Type	Title	Scope	Reference Period	Year of publication
Diagnostic	Statistical Yearbook of Tourism	National	2019	2020
International Demand	Study of International Tourism Demand	National	2015–2019	2019
Domestic Demand	Brazilian Domestic Tourism Bulletin	National	2012–2019	2019
Business performance	Business Survey – Agencies and Travel Organization	National	2020	2020
Business performance	Business Survey – Means of Hosting in Brazil	National	2020	2020
Demand	Consumer Survey – Travel Intent	National	2017	2017

Since the government's research was restricted to obtaining data and information on the agencies and lodging, it cast doubt on the accuracy of studies to explain the context of national tourism in the pandemic period of 2020. as well as the size of resources made available to companies to cope with the pandemic through public policies of promotion and innovation.

Based on the lack of breadth of the diagnosis of tourism in the pandemic period and the limited research published by the Ministry of Tourism, it is reasoned that there is a government disengagement and, therefore, poor and inefficient planning of the tourism industry (Table 7).

Table 7 – Analysis of the research context in Brazil

Analysis category	Sub-category	Finding
Lack of Specificity	Generalizations	The research published by the Ministry of Tourism broadly encompasses the universe of study, sometimes without contemplating the influences of variables external to the analyzed context, making inferences difficult, in addition to little analyzing the impacts between variables
Transparency	Open Data	None of the published studies have the data available without analytical treatment, nor do they show, in detail, the methodology of getting and analyzing, making it difficult to verify the analytical treatment and, therefore, reducing reliability
Transparency	Mismatch with the tourist market	The studies are published at least 12 months apart; only those with more significant frequency are those whose sources are institutions representing the tourism industry
Update	Frequency	The research developed by the Ministry of Tourism with greater frequency has a period from 12 months to 12 years, depending on the objective and industry

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[7] Source: Ministry of Tourism, 2021.

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The gaps perceived in the processes of data collection and information on tourism in Brazil are derived from the disarticulation of the current Brazilian government with the institutions representing the industry inherent to national tourism, the inaction as public policy, and the systematic reduction of financial resources (Fig. 1).

2. The Relevance of Tourism Observatories. The territorial extension of Brazil is continental. The country has 8,547,403 km² covering 27 states and 5,568 municipalities (IBGE, 2021). Therefore, the regionalization of tourism diagnostic research in the country is a fundamental strategy for studies of greater significance (Fig. 7). In this way, tourism observatories play a relevant role in obtaining data and information on the dynamics of state tourist territories.

Thus, the research "Business Survey of the Impacts of COVID-19 in the Tourism Industry" (RBOT, 2020) brought data of variables not available in the surveys of the same period undertaken by the Ministry of Tourism, such as area of activity (Fig. 8), company size, time of operation,

increase/decrease of prices, forecast of revenues for 2020, layoffs, among others more specific.

Fig. 7 – Spatial distribution of tourism observatories in Brazil and state with respondents from the RBOT 2020 survey (not proportional)[8]
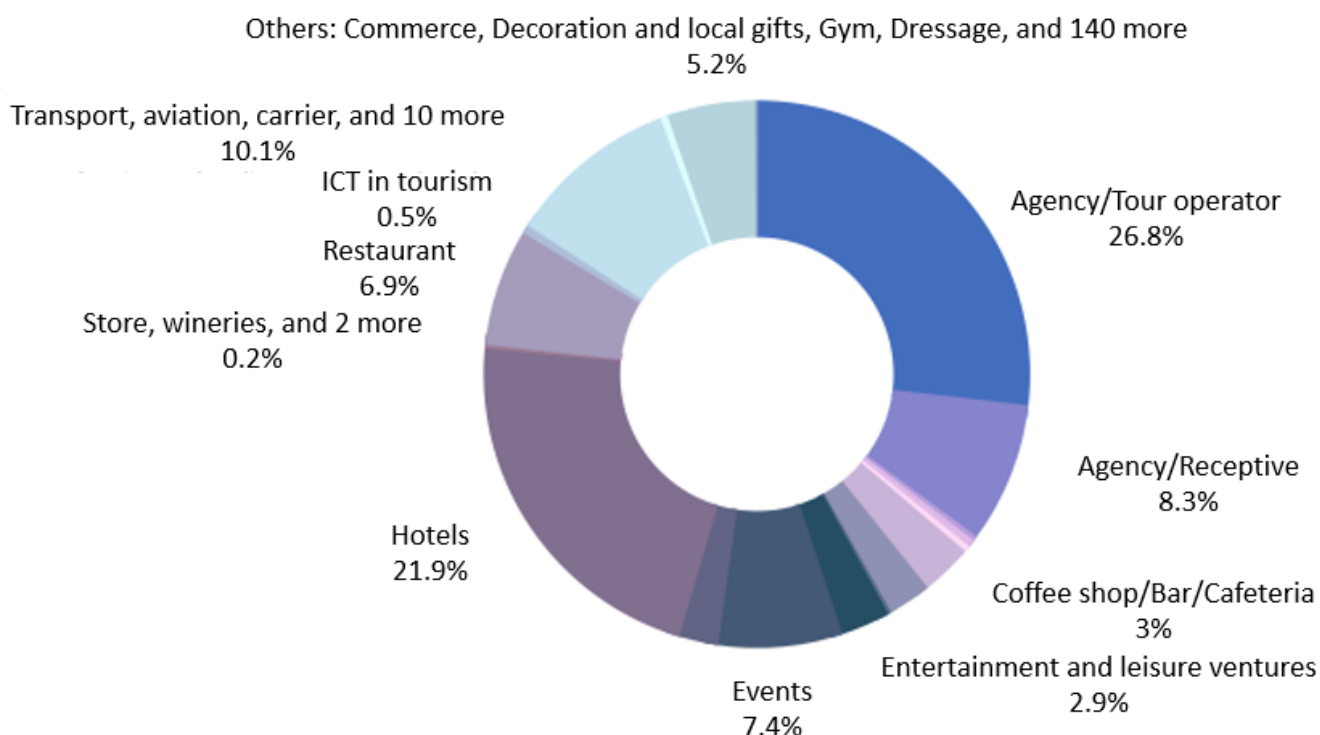

Fig. 8 – Area of activity of companies[8]

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[8] Source: RBOT, 2020

Among the variables analyzed, the decision of pricing products in the initial period of the COVID-19 pandemic, from January to April 2020, showed a certain optimism of entrepreneurs and the lack of perception of the amplitude that the pandemic would reach in the country because among the respondents 68.64% (n=3,378) maintained the prices or did not make any decision (Fig. 9).

The common understanding by entrepreneurs of the severity of the pandemic is also reflected in the dimensioning of the impact generated in the company's revenue, corroborating the strategy adopted to maintain the prices of products. Of the respondents, 67.42% (n=3,318) stated that COVID-19, in January 2020, had not affected revenues.

The evolution of the impact of COVID-19 on the revenues of tourism companies in Brazil shows a significant loss, generating a decrease in market share (35.5% stated that there was an impact of 100%) and, in part, the closure of commercial activities (7.4% reported the company's closure) (Fig. 10).

Fig. 9 – Product pricing decision[8]
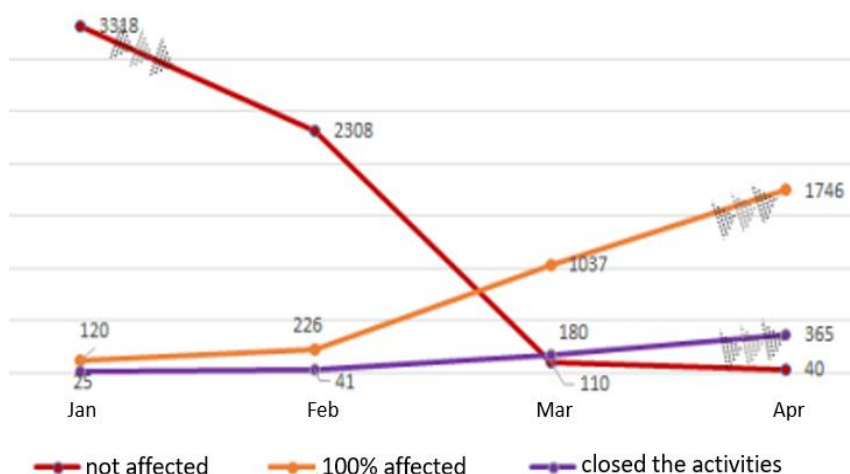
Fig. 10 – Impact of COVID-19 on company revenues between January and April 2020[8]

Through the Ministry of Tourism, the Brazilian government, based on Law No. 14046/2020, created emergency measures to mitigate the effects of the crisis caused by the COVID-19 pandemic, including the release of credit for financing companies in the tourism and cultural industries, through public banks. However, only 20.9% (n=1,028) of entrepreneurs declared to know the emergency aid actions of the Brazilian government fully.

Data from the RBOT (2020) survey support the analysis of variables not available in the national research by the Ministry of Tourism. The studies gaps undertaken by MTur define the

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weakness of the diagnosis of the reality of 2020 in the tourism industry and the discrepancy between the methodologies and results obtained with the RBOT studies. This finding is based on the research analysis of business surveys of travel agencies, tour operators, and lodging developed by MTur. Which addressed the collection of data from the variables: Number of Employees (job stability), Demand for Services Offered, Most Demanded Destinations, Composition of the travel group, and Average Family Income, excluding those that would accurately explain the context of the Brazilian tourist market in 2020.

3. The Tourism Management of the Brazilian Territory: The case of the Polo Costa do Delta.
By supporting himself in the ideas of Buhalis (2000), Santos (2014, p. 73) shows that the tourist destination "must be understood as a management space, a single entity, with a legal and political framework of marketing management and tourism planning." Thus, the tourism management of a territory involves the need to identify existing dynamics, observing from data and information generated by stakeholders.

However, obtaining territorial knowledge requires adequate methods and resources because a tourist destination implies several interactions between stakeholders, whose effect/impact "goes beyond its sum" (Santos, 2014, p. 74).

Thus, the management of the tourist destination should include in its research of the territory the multiple interactions, involving the getting of data and information from the various industries that interact directly and indirectly with tourism.

The tourism management of the Polo Costa do Delta territory, a territorial part of the northern Brazilian state of Piauí has never been attentive to the dynamics of tourism or the degree of competitiveness it has, impacting the development of the industry. Thus, inaction is the public policy present; that is, the decision not to do anything implies the model of tourism development in the region, which is disordered under the market's interest (Dye, 2005).

In this sense, the governance agencies, such

as the city tourism councils, are inoperative. In the case of Parnaíba, the last meeting recorded in minutes dates from July 23, 2019, evidencing the disarticulation between stakeholders.

Thus, understanding the impacts of the COVID-19 pandemic on Polo Costa do Delta tourism is an arduous task because reliable data and information, especially throughout 2020, are non-existent.

To minimize ignorance of reality and provide for companies and public managers, the Piauí Tourism Observatory, linked to the Universidade Federal do Delta do Parnaíba, was part of the RBOT observatory group and engaged the research of the business survey in the four municipalities of the Polo Costa do Delta.

From the data obtained in the research, the entrepreneurs' perception of a negative impact on tourism in the Polo Costa do Delta, similar to the national average in most of the analyzed variables, is highlighted. Reinforcing this perception, 41% (n=17) of respondents stated that, from January to April 2020, they reduced the number of employees, being the average at the national level 44.5% (n=2190).

As an initial solution, the companies sought to sustain the activities through remote care. However, 51% (n=21) could not keep their employees in this condition, indicating the lack of preparation in planning and managing activities from digital technologies.

Corroborating the collected data, other variables stand out in the reading of the tourist reality of the Polo Costa do Delta in the first half of 2020, such as the drop in corporate revenues, generating 10% (n=4) of bankruptcies.

In this context, public managers and tourism governance agencies in the territory of the Polo chose not to adopt measures to aid the industry, conditioning companies to the emergency policies of the Brazilian government. Therefore, it is possible to affirm that part of the perceived negative impacts is due to the lack of public policies at the three levels of public administration (federal, state, and municipal governments). As a result, the short term prevents the support of

employment and tourism companies, just as this inaction increases social order problems such as the unemployment rate, inequality, and violence.

Awareness of the use of marketing tools and information and communication technologies presented a great challenge, even before the pandemic affected the northern region of Piauí (Araújo et al., 2020). This strategic deficiency directly influences the tourism promotion of the territory and the recovery of the economic growth of tourism.

Given the facts exposed, the Polo Costa do Delta tourist destinations lack specialized continuous training, coordination of institutional efforts for development, adequate tourism planning, and decentralization of decisions (Table 8).

Table 8 – Analysis of the research context in the Polo Costa do Delta

Categories of analysis	Findings
Lack of skilled labor	The qualification of labor in the region lacks at the technical level, and there is, regularly, a course in higher education with generalist training. However, this deficiency does not influence the political agenda of the tourism management of the territory
Poor coordination	There is no institutional communication based on ICT, delaying strategic decisions. There are also overlaps of actions between managers and institutions to support tourism development
Lack of Planning	Due to the low quality of the workforce, also reflected in the managing institutions, tourism planning remains focused on punctual and low-impact actions
Centralized decision-making	Strategic decisions are limited to the managers of the institutions, exposing the low participation of other stakeholders and the disarticulation in the management of the territory

The lack of specialized labor has caused the leakage of tourism workers to other territories, mainly to tourist destinations belonging to the tourist route called Rota das Emoções and with the migration of labor to other industries of the regional economy (Perinotto, Borges & Vieira, 2020).

According to Perinotto, Borges, and Vieira (2020), the territorial management of tourism in the Polo Costa do Delta will only acquire distinct contours of the current reality, especially the challenges imposed by the COVID-19 pandemic when there is the insertion and retention of skilled workers and holders of skills and competencies that satisfy the desire for an efficient, orderly and science-based management to generate the tourism knowledge necessary for the development of the Polo.

4. Comparative Table. The comparative analysis between the two areas of the research, "Data on tourism in Brazil" and "Management of the tourist territory of the Polo Costa do Delta," was considered through the study of the categories presented by Santos (2017) among other authors cited in the survey and the primary data published by RBOT and OTPi (Table 9).

Table 9 – Comparative analysis between research areas

Data on tourism in Brazil	Management of the tourist territory of the Polo Costa do Delta
Lack of specificity, reliability, and updating	Lack of skilled labor
Lack of data without analytical treatment or even the detailing of methodological procedures for data collection and analysis	Poor coordination
Slowness in the analysis	Lack of planning
Delay in publishing the researches	Centralized decision-making

Thus, it was possible to discover eight findings and possible theoretical contributions related to the existing dichotomies in planning and managing tourist destinations in Brazil. At the national level, four findings correspond to the

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categories of analysis "lack of specificity," "transparency," and "updating." First, when one observes the publications of data and information of the Ministry of Tourism, which present inconsistencies in the analyses of the impacts of external variables, making inferences difficult. Second, the published studies do not present the raw data without analytical treatment or even the detailing of methodological procedures for data collection and analysis, reducing the reliability of published data. Third and fourth, the slowness in the analysis and the delay in publishing the research indicates the tourist market's misstep and the lack of a frequency of research in tourist industries of lower representation.

In the regional section, dedicated to the Polo Costa do Delta, tourist region of the State of Piauí, there were four other findings from the perspective of the categories of analysis "lack of specialized labor," "poor coordination," "lack of planning," and "centralized decision-making." The fifth finding is a deficiency in a technical and qualified workforce that prevents penetration into the political universe and strategic management of the state's tourist territory. Sixth, the lack of sustained institutional communication based on information and communication technologies causes the overlap of actions between managers and institutions to support the development of tourism and delays strategic decisions. Seventh, tourism planning is limited to low-impact specific actions justified by low technical quality and appreciation of tourism professionals. Finally, the eighth finding shows the low participation of local actors and their disarticulation in the management of the territory, which is the case of centralized strategic decisions of the managers of the tourist territory.

Conclusion

Therefore, it is understood that the direction of this study and its main contribution was related to understanding the gaps between the data obtained and published by the Brazilian government and the implementation of institutions representing tourism research in Brazil. Through a comparative analysis between the published

government surveys and the survey conducted by RBOT and OTPi, which received particular attention in the present study, the territorial cutout is defined and located in the tourism-inducing municipalities in the Polo Costa do Delta. Methodologically, the application and deepening of the categories of analysis allowed us to highlight these gaps.

Thus, the gaps were evidenced, in practice, when analyzing comparatively the studies operationalized by the RBOT and OTPi. However, despite these gaps, which contribute to the lack of a positioning and strategies directed to national and international tourism, integrated knowledge management and the need for valorization and decentralized investment in regional observatories are notable as a central axis but allows a broader focus on other areas of tourism.

Thus, the relevance of RBOT research at the national level is reinforced since the network provides and stimulates observatories in the application of scientific methodologies, sustains analyses of different variables, and exceeds the categories usually used in national research of the Ministry of Tourism. The gaps in the studies undertaken by the federal government show the weakness that the tourism industry faces during the COVID-19 pandemic in Brazil. The authoritarian and interventionist stance of the current Brazilian government also significantly harms the regional management of tourist territories, considering that actions and decisions remain centralized and taken off from state policies. This scenario intensifies the discontinuity of projects and further distances itself from the research carried out in Brazilian tourism monitoring institutions. There are also gaps not deepened in this study in the sense of the regional mismatch and challenges faced by the public management of tourism in the municipalities. The hypothesis developed in this research, referring to the decentralized actions of the national scope of the RBOT, is confirmed and endorses the aspect of reliability in the sharing of data and information that expresses more excellent approximation with the reality of Brazilian tourism.

Thus, it is possible to identify that cooperation and integration contribute to the formation of the concept of smart tourist destination purely overcome the challenges of innovation, expressed in technological infrastructure and sustainability, and, through communication, allows interaction and connection with the actors of the tourism production chain.

Future studies are envisaged as attractive to the possibility that data collected by public agencies at a national level will be arranged for analysis in light of what is researched at the regional level and identify the interests and challenges of public administrations on tourism activity. Therefore, studies that present more reports of problems in tourism related to data management and the lack of coherence of the surveys and their historical sequences are relevant.

However, future research should consider more diverse factors, develop comparisons with other world tourist territories that have smart tourism destinations, and make better use of data for the development of tourism. It is considered no less important that future studies address how data technology is applied, considering the attributes of destinations and the transfer of knowledge to local actors involved in tourism in an organized and transparent manner. The relationship between the attributes of smarter tourism and destination is part of the essentiality of future research that includes data management and the process of building a smart destination.

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