COMPETITIVENESS OF TOURIST DESTINATIONS
A COMPARATIVE ANALYSIS OF SÃO LUÍS - MARANHÃO FACING THE NORTHEAST BRAZILIAN CAPITALS

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\textbf{ABSTRACT:} The competitive advantage of a destination in relation to other similar destinations should stimulate the commitment of stakeholders on the supply side to encourage more investments and actions in the tourism sector, making it more attractive, competitive and sustainable. The objective of this study is to analyze the competitive position that the tourist destination São Luís occupies in relation to the other capitals of the Brazilian northeast. The study is characterized as descriptive-explanatory, whose universe is composed of 10 destinations in the northeast region of Brazil. The methodology of quantitative nature simultaneously analyzes, in a descriptive and explanatory way, the data regarding the tourist flow and the competitiveness indicators, based on the National Tourism Competitiveness Model. Non-parametric statistical tests were used for comparison and ranking of competitors. The data indicate that the tourist destination São Luís is ranked 6th among the Northeast capitals, both in terms of performance regarding the tourist flow and regional competitiveness. However, it presents a low coefficient of variation along the analyzed period, which indicates a slow and moderate growth, however, positive. The results can contribute to the tourism industry by subsidizing managers in decision making and effective action.

\textbf{KEYWORDS}
Competitiveness Index;
Tourist Flow;
São Luís Maranhão.
INTRODUCTION

In the last decades, the growth in the flow of tourists around the world has been accompanied by an increase in the number of destinations, a fact that has generated an environment of greater competitiveness (Matovelle & Marrero, 2014). In this context, competitiveness emerges as a central theme in the tourism research field (Loureiro & Ferreira, 2015; Carvalho, Márquez & Montserrat-Díaz, 2016; Lopes & Soares, 2017; Costa & Lima, 2018; Estevão et al., 2018; Perna, Custódio & Oliveira, 2018; Nalakath & Koshy, 2019). The creation of competitive advantage is linked to how the organization differentiates itself from current and future competitors and how this differentiation is perceived and understood, in terms of value, by customers; arising from the way the organization articulates marketing strategies with internal strategies (Hocayen-da-Silva & Teixeira, 2007). On the competitiveness of tourist destinations Santos, Ferreira & Costa (2014) point to 04 factors that can negatively influence the ability to compete. The first factor refers to the deterioration of destination infrastructures; the second relates to destination management, namely the lack of strategic vision; the third factor refers to the loss of economic vitality of destinations; and the fourth concerns the impacts that tourism activity has on the territory, emphasizing environmental, social and cultural impacts.

It is observed, however, that the negative prominence when it focuses on the lack of strategic vision, radiates and causes considerable impacts on a whole set of factors directly related to the destination governance and the behavior of the predominant social structure in the receiving community, with unpredictable effects. The competitiveness of tourism activity cannot be analyzed in isolation, since it is directly related to the performance of diverse organizations and, above all, of other economic, political and social sectors. The main models of tourist destination competitiveness converge when treating competitiveness as an intermediate step towards a final objective: local and/or regional development. Considering, also, that no tourist destination is competitive in isolation, since competitiveness is a comparative concept and, in this sense, the competitiveness of a tourist destination should be evaluated in comparison with its competitors (Vieira et al., 2019).

Thus, this article aims to analyze the competitive position in which the tourist destination São Luís presents itself in relation to the other capitals of the northeast of Brazil, based on the indicators of the National Tourism Competitiveness Index (Barbosa, 2015) and the Tourist Flow of the Capitals of the Northeast Region (2015). It is noteworthy that in the northeast of Brazil tourism has gained prominence since the 1990s, with the Program for the Development of Tourism in the Northeast - PRODETUR. The natural conditions, and especially the coast, are important tourist attractions. There are about 3,000 km of beaches, making evident the expansion of tourist activities in the Northeast territories (Coriolano, Vasconcelos & Fernandes, 2017). Tourism has resized the importance of the northeast coast as an economically active area. This redefinition was mainly due to the restructuring of the region’s capital cities, which, due to the investments aimed at the tourist activity, obtained shades of modernity through projects that valued its particular coastal geography (Alves & Dantas, 2016).

The article is divided into 6 sections, including this introduction. The next section presents a brief historical-geographical overview of São Luís tourist destination. The third section refers to the main models of destination competitiveness developed so far. The fourth section describes the research methodology. The fifth section presents and discusses the results, and the sixth section presents the work final considerations.

SÃO LUÍS TOURIST DESTINATION: historical-geographical overview

It is known that São Luís is the only provincial metropolis in Brazil that was not born Portuguese but French. This circumstance lent it another prerogative of distinction among its counterparts: it was the only one that received, in the act of its foundation, its own regiment, a statute, an institutional charter, a constitution, may we say, that was granted to it by its founders, on behalf of the King of France and Navarra (Meireles,
The name of the city is a tribute paid by the French to the king of France, Louis XIII, as recorded by the chronicler of Equinoctial France, Father Capuchin D’Abbeville (1874). Later, the name came to refer to Louis IX, called “Saint Louis King of France” (D’Abbeville, 1874, p. 98-99).

The official foundation was in 1612, when the French started to occupy the region, and they installed the Fort of São Luís, in honor of the King-boy Louis XIII, coming from there the name of the city. Other particularities as a tourist attraction is that this city, in the middle of the nineteenth century, had become a metropolis, being the fourth most important city in the Brazilian Empire, besides being one of the three insular capitals of Brazil (the others are Florianopolis and Vitória) (PREFEITURA DE SÃO LUÍS, 2010).

Due to the monumental nature of its buildings, the homogeneity of its ensemble, the integrity of its 16th century urban design, and its immaterial heritage, the Historic Center of São Luís keeps the title of Cultural Heritage of Humanity, declared by the United Nations Educational, Scientific and Cultural Organization - UNESCO (1997) and represents a very important landmark for Brazilian and world history. The urban space, the architecture and the cultural manifestations, give to São Luís its own identity and historical and cultural personality (Bogêa, Brito & Pestana, 2005).

Part of the Historical Center of São Luís has had its residential function replaced by commerce and services over time. In particular, the area protected by the federal overturning legislation has suffered a more accentuated emptying, aggravated by the installation of the federal, state and municipal administrative function in the surrounding buildings, pushing the resident population further away (Santo, 2006, p. 70).

Placed at the western end of the promontory formed by the confluence of the Bacanga and Anil rivers, the Historical Center of São Luís, with its two hundred and twenty hectares, is composed by the original core of the city, dated from the first quarter of the 17th century, and the adjacent urban spaces, dating from the 18th, 19th and 20th centuries (Bogêa , Brito & Pestana, 2005).

This is the main city in the Greater São Luís Metropolitan Region and occupies an area of 834,785 Km². It is located in the Northeast of Brazil at 2° to the South of the Equator, being 24 meters above sea level. Four cities are part of Greater São Luís, which is composed of São Luís (1,101,884), São José de Ribamar, (177,687) Paço do Lumiar (122,197 ) and Raposa (30,761) - which also make up the so-called Metropolitan Region of São Luís, which has 9 municipalities, according to the Complementary State Law No. 161 of December 3, 2013. Currently, almost a quarter of the whole population of Maranhão (7,075,181) lives in Greater São Luís, according to a survey by the Brazilian Institute of Geography and Statistics (IBGE), regarding the 2019 population estimate (IBGE, 2019).

The climate of São Luís is tropical, hot and humid, strongly influenced by the sea and for being near the Equator Line Figure 1. From the vegetation, what is left of the Amazon Forest stands out, besides a great amount of coconut trees and the plentiful coastal vegetation.

**Tourist Attractions**

The beaches are the most sought after tourist spots in the city. We can highlight: Guia Beach; Prainha; Cajuiero Beach; Love Beach; Ponta d’Areia Beach; São Marcos Beach; Calhau Beach; Olho d’Agua Beach; Middle Beach; Araçagi Beach, among others.

São Luís also houses a rich colonial architectural collection as one of the main tourist attractions open to visitation, among which are: the Arthur Azevedo Theater, the second oldest theater in Brazil with capacity for 750 spectators, distributed over four floors. The Lions’ Palace, built by the French as a fortification in honor of King Louis XIII in 1612. The structure of the current building was built at the end of the
18th century and underwent countless renovations, until it assumed the neoclassical style. Today, it is the seat of the State Government.

The Cathedral of São Luís do Maranhão, in whose interior stands out the main altar carved in gold, the Palace of La Ravardièere, originally built in 1689, the Museum of Visual Arts has a collection composed of colonial tiles, murals, photographs and works of artists from Maranhão, the Center of Popular Culture Domingos Vieira Filho, The Historical and Artistic Museum of Maranhão, inaugurated in 1973, which stands out for the reconstitution of the typical decoration of the 19th century houses with furniture, objects and works of art, the Convento das Mercês, built in 1654 and inaugurated by Father Antônio Vieira, CEPRAMA - Maranhão’s Handicraft Production Center, an institution that promotes Maranhão’s culture, with a permanent typical handicraft fair.

Tourism economy in Maranhão

More recent data made available by the Observatory of Tourism of Maranhão, through a bulletin called Formal Economy - Employment and Income, released in 2019, show a little encouraging picture for the sector.

One of tourism’s pillars as a socioeconomic activity, i.e., the generation of employment and income, presents the total number of 43,033 jobs generated by the sector in 2018, which represents 0.6% in relation to all other economic activities, with a negative variation of 1.83% compared to 2017, a result that will certainly be further aggravated by the scenario under which the world economy presents itself, due to the global economic retraction caused by the COVID-19 pandemic, whose impacts strongly affect tourism.

Another important aspect to consider is the nominal average monthly income of employees in Maranhão, which in 2018 was R$ 2,423.33, while the same indicator shows that employees in the tourism sector earn an average of R$ 1,432.88, which represents only 59.12% of other workers, a fact that should contribute to discouraging those interested in working in the sector.

Still according to the same comparative study, the total income of workers in the tourism sector represents 3.41% of the total income earned by other workers in other economic activities. It is important to highlight that the study refers to the state of Maranhão as a whole and not particularly to the destination São Luís.

This data refers to the formal tourism economy in the Annual Social Information Report (Relação Anual de Informações Sociais-RAIS), taking into account the following sectors: agency, food, commerce and services, entertainment, lodging and transportation which covers the 2017-2018 time span, showing a significant retraction in entertainment activity, in addition to other smaller but considerable reductions in the sub-sectors of agencies and operators, commerce, services and transportation, as shown in Table 1.

| Table 1 - Tourism Jobs Maranhão - 2017-2018 |
|---------------------------------------------|
| **Comparative** | **2017** | **2018** | **Variação %** |
| Total formal jobs in Maranhão | 713,051 | 774,143 | 4,78 |
| Total tourism-related Jobs | 43,836 | 43,033 | -1,83 |
| **Touristic Sector** | | | |
| Agencies and Operators | 555 | 541 | -2,52 |
| Food | 13,878 | 14,511 | 6,00 |
| Trade and Services | 8,620 | 8,419 | -2,33 |
| Entertainment | 5,965 | 4,643 | -22,16 |
| Hosting | 4,444 | 4,453 | 0,20 |
| Transport | 10,374 | 10,266 | -1,04 |

Source: Elaborated by the authors with data from the Tourism Observatory of Maranhão.

Another economic information addressed by the aforementioned Bulletin, and which should also be regarded as relevant, concerns the quantitative reduction of existing tourism enterprises in Maranhão, which presents negative results of 0.40%, between 2017 when they totaled 5,551 and were reduced to 5,529, in 2018, as shown in Table 2.

| Tabela 2 – Tourism Establishments in Maranhão 2017-2018 |
|--------------------------------------------------------|
| **Comparative** | **2017** | **2018** | **Variação %** |
| Total formal jobs in Maranhão | 46,267 | 46,627 | 0,78 |
| Total tourism-related Jobs | 5,551 | 5,529 | -0,40 |
Among the Destination Competitiveness Analysis Models available in the literature, we highlight those developed by: Porter (1990); Crouch & Ritchie (1999); Dwyer & Kim (2003); Heath (2003); World Economic Forum (2007); Mazanec, Wöber & Zins (2007); World Travel and Tourism Council (WTTC); (2007); Brazilian Tourist Competitiveness Index (Barbosa, 2015); Zaccarelli et al. (2008); Costa et al. (2013); Añaña, Pereira & Anjos, (2015); Cvelbar et al. (2016); Perna, Custódio & Oliveira, (2018).

Tourist destinations are one of the most difficult entities to operate, manage and commercialize, due to the great variety of stakeholders, directly involved in the development, production and delivery of tourism products, and it is also considered important the complex interests and relationships existing between these parties, and competitiveness in a tourist destination context means different concerns for different people, facts that characterize the multidimensionality of tourism (Buhalıs, 2000).

The comparative competitiveness of a tourist destination comprises its resources, such as climate, fauna and flora; considering that competitive competitiveness concerns the destination’s ability to effectively use resources (Loureiro & Ferreira, 2015).

Due to the variety of approaches, the possibilities to explain the models have also grown, making the analytical capacity even more complex, which makes it difficult to identify which dimensions are effectively determinant for the competitiveness of the destinations.

Competitiveness factors in tourism have a positive impact on the development of countries, especially when considering the economic sphere, confirming the hypothesis that tourism is positively related to national income or GDP. It can still be concluded that each pillar of competitiveness has a different impact on the development of countries, but that, in general, the impact of each is positive on GDP, as well as the total impact (Montanari & Giraldi, 2013).

Some authors, however, disagree on the importance of tourism competitiveness as a development tool, claiming that highly competitive destinations can help attract more visitors to a destination, but this does not necessarily mean that the sites will benefit from tourism development. Filters in the economy can easily neutral-
ize most of the country’s tourism gains and thus reduce the net economic benefits of tourism to the local population (Webster & Ivanov, 2019). Tourism development, however, has created great challenges for tourism marketing. The ‘alternative’ destinations are expanding and, consequently, marketing professionals are strongly challenged to influence tourists’ decision making. Due to the emergence of new markets and new competitors, tourist destinations’ prosperity depends on a constant flow of tourists, thus only well managed destinations are able to progress in this super competitive scenario (Silva & Costa, 2017).

Comparative and competitive advantage that a destination has in relation to other similar destinations increases the engagement and commitment of stakeholders on the supply side for more investments in the tourism sector and, thus, the increase of business in the destination (Nalakath & Koshy, 2019). Policy makers should be informed that, through public interventions, tourism can advance development through the design and implementation of integrated policies in developing economies. Moreover, consistency and coherence of policies are essential for competitiveness, sustainability and maximization of the benefits of tourism (Khan et al, 2020).

This research involves very similar destinations in terms of their characteristics and predominant attributes (supply and demand profile, predominance of sun and beach, similarities of climate, cuisine, customs, culture, arts, besides being located contiguously in the same geographic region) and that compete in the same segments. The choice of these criteria aims, mainly, to avoid very disparate comparisons between destinations of different market segments, with distinct profiles and characteristics that effectively do not compete among themselves, which, when it occurs, may cause inconsistencies in the analysis.

**Methodology**

The study is characterized as descriptive-explanatory, in a quantitative approach whose universe is composed by 10 tourist destinations, being 9 of them the capitals of the northeast region of Brazil and the other, Parnaíba, in Piauí, inserted in the study to compensate the capital, Teresina, in the question sun and beach, since this city is not geographically located on the coast.

All the destinations analyzed were classified on The Map of Brazilian Tourism by the Ministry of Tourism (MTUR), municipalities in category “A”. The study covers the time span from 2008 to 2015, with the exception of 2012, the year in which the survey was not conducted.

The data regarding the competitiveness of the tourist flow in the Northeast Region - 2008 -2014, Table 3, originate from the GTP/CTI-NE (GTP prepared by the Northeast Integrated Tourism Commission) with information from Official Tourism Agencies of the Northeast States.

**Table 3 – Tourist Flow in the Capitals of the Northeast Region - 2008-2014 (x 1,000)**

| Cities       | Period – Years |
|--------------|----------------|
|              | 2008 | 2009 | 2010 | 2011 |
| Salvador     | 2.620| 2.848| 3.047| 3.276|
| Recife       | 2.214| 2.297| 2.479| 2.648|
| Fortaleza    | 2.178| 2.467| 2.692| 2.848|
| Natal        | 1.391| 1.476| 1.650| 1.675|
| Maceió       | 1.100| 1.285| 1.347| 1.501|
| São Luís     | 959  | 1.013| 1.145| 1.185|
| Aracaju      | 422  | 443  | 510  | 549  |
| João Pessoa  | 837  | 853  | 955  | 990  |
| Teresina     | 413  | 451  | 551  | 643  |

| Cities       | Period – Years |
|--------------|----------------|
|              | 2012 | 2013 | 2014 |
| Salvador     | 3.522| 3.796| 4.119|
| Recife       | 2.774| 2.917| 3.093|
| Fortaleza    | 2.995| 3.141| 3.262|
| Natal        | 1.701| 1.728| 1.758|
| Maceió       | 1.596| 1.684| 1.776|
| São Luís     | 1.227| 1.269| 1.314|
| Aracaju      | 690  | 714  | 739  |
| João Pessoa  | 1.064| 1.123| 1.159|
| Teresina     | 670  | 695  | 721  |

Source: GTP/CTI-NE (Official Tourism Agencies of the Northeast States) *Northeast Integrated Tourism Commission

The data regarding the competitiveness of the destinations in relation to the indicators of the 13 dimensions analyzed were collected in the National Tourism Competitiveness Index (MTur), a model conceived, organized and structured with focus on the national reality.
and which, in thesis, solves some of the limitations of the other models, such as applicability to tourist destinations, the use of measurable indicators and the possibility of comparison (Vieira et al., 2019).

The Brazilian Model contemplates the weighted sum of 5 macro-dimensions (infrastructure, tourism, public policies, economy and sustainability) and 13 dimensions: General Infrastructure; Access; Tourist Services and Equipment; Tourist Attractions; Marketing and Destination Promotion; Public Policies; Regional Cooperation; Monitoring; Local Economy; Business Capacity; Social Aspects; Environmental Aspects and Cultural Aspects as shown in Chart 1.

| DIMENSION VARIABLE | 1 | 2 | 3 | 4 | 5 |
|--------------------|---|---|---|---|---|
| **1 Infrastructure** | 1) Capacity of medical care for the tourist at the destination; 2) Urban structure in tourist areas; 3) Energy supply; 4) Tourist protection service. | 5) Air access; 6) Road access; 7) Waterway access; 8) Railway access; 9) Destination transport system; 10) Proximity to large emissive tourist centers. | 11) Tourist signage; 12) Tourist assistance center; 13) Spaces for events; 14) Lodging capacity; 15) Receptive tourism capacity; 16) Quality structure for tourism; 17) Restaurant capacity. | 18) Natural attractions; 19) Cultural attractions; 20) Scheduled events; 21) Technical, scientific or artistic accomplishments; 22) Diversity of attractions, entertainment options and equipment | 23) Marketing plan; 24) Participation in fairs and events; 25) Destination promotion; 26) Digital promotion strategies |
| **2 Access** | 3) Energy supply; 4) Tourist protection service. | 10) Proximity to large emissive tourist centers. | 15) Receptive tourism capacity; 16) Quality structure for tourism; 17) Restaurant capacity. | 22) Diversity of attractions, entertainment options and equipment | 27) Municipal Structure to Support Tourism; 28) Degree of Cooperation with State Government; 29) Degree of Cooperation with Federal Government; 30) City and Tourism Activity Planning; 31) Degree of Public-Private Cooperation. |
| **3 Tourism Attractions** | 13) Spaces for events | 14) Lodging capacity | 15) Receptive tourism capacity | 21) Technical, scientific or artistic accomplishments | 32) Governance; 33) Regional Cooperation Projects; 34) Regional Tourism Planning; 35) Routing; 36) Marketing promotion and support in an integrated way. |
| **4 Business Capability** | 17) Restaurant capacity | 16) Quality structure for tourism | 15) Receptive tourism capacity | 20) Scheduled events; 21) Technical, scientific or artistic accomplishments; 22) Diversity of attractions, entertainment options and equipment | 37) Demand surveys; 38) Supply surveys; 39) Tourism statistics system; 40) Measuring the impacts of tourism activity; 41) Specific sector of studies and research. |
| **5 Marketing and Promotion of the Destination** | 25) Destination promotion; 26) Digital promotion strategies | 27) Municipal Structure to Support Tourism; 28) Degree of Cooperation with State Government; 29) Degree of Cooperation with Federal Government; 30) City and Tourism Activity Planning; 31) Degree of Public-Private Cooperation. | 32) Governance; 33) Regional Cooperation Projects; 34) Regional Tourism Planning; 35) Routing; 36) Marketing promotion and support in an integrated way. | 42) Qualification capacity and use of local staff; 43) Presence of national or international groups in the tourism sector; 44) Competition and entry barriers; 45) Business generation and entrepreneurship. |
TABLE INTERPRETATION MODE

For the interpretation of the information, two tables are presented, one with the comparisons between each destination pair, Table 4, and the other with the destination ranking, Table 5. In this sense, each of them must be interpreted differently.

**Table Interpretation of comparisons between each destination pair**

Table 4 shows 4 columns. The first shows the destinations under comparison, the second is the difference sign (+ and -) of the tourism flow averages between the destinations under comparison, the third is the significance value (p value) and the fourth is the diagnosis (S = Significant difference and NS = Non significant difference).

First of all, observe the “Diagnosis” column and check if the p-value is significant (nomenclature equals “S”). Once it is verified that the diagnosis is of significant p-value, it can be concluded that there is a statistically significant difference between the destinations under comparison in relation to the tourist flow index.

Once the existence of a significant difference is verified, one should look at the “Difference Sign” column, and if the sign is negative, it means that, on average, the tourist flow referring to the first destination in the “Comparisons” column is lower than that of the second. If the difference sign is positive, it means that, on average, the tourist flow referring to the first destination in the “Comparisons” column is greater than that of the second.

For example: In the first row of Table 4 we see that the diagnosis was equal to “S”, so we can say that there is a statistically significant difference between the Aracajú and São Luís destinations regarding the tourist flow. Then, observing the difference sign, one can conclude that, on average, the tourist flow index for Aracajú destination tends to be lower than that presented by São Luís destination (or one can also say that, on average, the tourist flow index for São Luís tends to be higher than that presented by Aracajú).

**Table 4: Comparison of Tourist Flow between destinations.**

| Comparisons       | Difference | P   | Sig |
|-------------------|------------|-----|-----|
| Aracajú - São Luís| -          | 0,000 | S   |
| Fortaleza - São Luís| +        | 0,000 | S   |
| João Pessoa - São Luís | -       | 1,000 | NS  |
| Maceió - São Luís  | +          | 0,088 | NS  |
| Natal - São Luís   | +          | 0,001 | S   |
| Recife - São Luís   | +          | 0,000 | S   |
| Salvador - São Luís | +         | 0,000 | S   |

Source: Barbosa (2015)

The table shows the comparison of tourist flow between destinations, indicating the significance of the difference between them.
Interpretation of the destination ranking tables

From the hypothesis tests carried out, a ranking of the tourist flow of the destinations was assembled. The statistical tests code each destination with letters, so that different codes mean that the destinations are at different levels in relation to the tourist flow. The table referring to the ranking - Table 5 - has four columns: the first identifies the destination, the second the average values of the tourist flow index, the third the codification obtained through the statistical tests and the fourth refers to the ranking. It is possible to have more than one destination in the same ranking position, as long as the statistical tests do not show statistically significant differences.

Table 5: Ranking of destinations in relation to the tourist flow.

| Destination | Average | Ranking | Classification |
|-------------|---------|---------|----------------|
| Salvador    | 3318,29 | a       | 1º             |
| Fortaleza   | 2797,57 | a       | 1º             |
| Recife      | 2631,71 | a       | 1º             |
| Natal       | 1625,57 | b       | 2º             |
| Maceió      | 1469,86 | bc      | 3º             |
| São Luís    | 1158,86 | cd      | 4º             |
| João Pessoa | 997,29  | d       | 5º             |
| Teresina    | 592,00  | e       | 6º             |
| Aracajú     | 581,00  | e       | 6º             |

Source: Elaborated by the authors with data from GTP/CTI* - NE (Official Tourism Agencies of the Northeast States)

*Northeast Integrated Tourism Commission

Statistical Tests and Ranking of Destinations

In this section, the results of the statistical tests used to compare the tourist flow between each pair of destinations are presented. Therefore, considering that the sample under study is small, it was necessary to use nonparametric statistical comparison tests, since these are appropriate in the case that the variables do not follow a normal probability distribution or the sample in question is small in size.

The test used to compare the tourist flow values between each pair of destinations was the Kruskal-Wallis non-parametric test with Bonferroni correction. In addition, from this statistical test, codifications were generated for each destination, in order to create a ranking among the studied destinations in relation to the tourist flow. The results of the statistical tests, as well as the rankings are presented in Tables 4 - 5 already mentioned.

The data were analyzed using the same set of indicators, applied in an unrestricted way to all destinations (Aracajú; Fortaleza; João Pessoa; Maceió; Natal; Pernambuco; Recife; Salvador; São Luís; Teresina), being able to assess similarities and eventual discrepancies with the use of the same observation lens, since the competitiveness of a tourist destination must be evaluated in a way that is compared to competitors in the same segment or closely equivalent.

Descriptive Analysis

The descriptive analysis of the data occurs in two distinct moments: regarding the tourist flow, based on the Tourist Flow of the Capitals of the Northeast Region and regarding the competitiveness indicators based on the Competitiveness Model of the National Tourism.

Descriptive Analysis of the Tourist Flow

Initially, the descriptive measures for the tourist flow of each destination were obtained and the extreme values (minimum and maximum), average, standard deviation, quartiles and coefficient of variation were measured...
Table 6. In addition to the descriptive measures, boxplots were also elaborated, Figure 2, and line graph, Figure 3, allowing a graphical behavior visualization of the indicators and the respective evolution of the tourist flow of destinations over the years.

From Table 6, the following abbreviations should be considered:
- SD = standard deviation;
- Min and Max = minimum and maximum values, respectively;
- Q1, Q2 and Q3 = 1st, 2nd and 3rd quartiles, respectively;
- CV = Coefficient of variation (in %)

Table 6 - Descriptive measures for the tourist flow of Northeast Brazil capitals

| Destination | Tourist Flow | | | |
|-------------|--------------|---|---|----|
| Aracajú     | 581,00       | 132,24 | 422,00 | 476,50 |
| Fortaleza   | 2797,57      | 382,85 | 2178,00 | 2579,50 |
| João Pessoa | 997,29       | 125,67 | 837,00 | 904,00 |
| Maceió      | 1469,86      | 238,93 | 1100,00 | 1316,00 |
| Natal       | 1625,57      | 137,93 | 1391,00 | 1563,00 |
| Recife      | 2631,71      | 322,63 | 2214,00 | 2388,00 |
| Salvador    | 3318,29      | 531,51 | 2620,00 | 2947,50 |
| São Luís    | 1158,86      | 130,98 | 959,00 | 1079,00 |
| Teresina    | 592,00       | 122,16 | 413,00 | 501,00 |

| Destination | Tourist Flow | | | |
|-------------|--------------|---|---|----|
| Aracajú     | 549,00       | 702,00 | 739,00 | 22,76 |
| Fortaleza   | 2848,00      | 3068,00 | 3262,00 | 13,69 |
| João Pessoa | 990,00       | 1093,50 | 1159,00 | 12,60 |
| Maceió      | 1501,00      | 1640,00 | 1776,00 | 16,26 |
| Natal       | 1675,00      | 1714,50 | 1758,00 | 8,49 |
| Recife      | 2648,00      | 2845,50 | 3093,00 | 12,26 |
| Salvador    | 3276,00      | 3659,00 | 4119,00 | 16,02 |
| São Luís    | 1185,00      | 1248,00 | 1314,00 | 11,30 |
| Teresina    | 643,00       | 682,50 | 721,00 | 20,64 |

Source: Elaborated by the authors with data from GTP/CTI*-NE (Official Tourism Agencies of the Northeast States)

*Northeast Integrated Tourism Commission

After the descriptive analysis, non-parametric statistical comparison tests were performed, in order to compare the results of tourist flow indexes between each pair of destinations using the Kruskal-Wallis test with Bonferroni correction. In addition, a ranking was established among the destinations, with the objective of verifying the position of each competitor in relation to the tourist flow achieved over the time determined by the study, as shown in Figures 4 and 5.

The boxplot or box diagram is a graphical tool that allows visualizing the distribution and outliers of the data, providing a complementary means to develop a perspective on the character of the data. Moreover, the boxplot is also a comparative graphic layout. Descriptive statistics measures such as minimum, maximum, first quartile, second quartile or median and third quartile, form the boxplot - Figure 2.

Through the variables tourist flow and destinations to build the comparative boxplot, it can be concluded that the destination São Luís presents a flow variability that places it in the 6th position among the other destinations, which was previously confirmed by the other indicators.

Figure 2: Boxplots for the distribution of the Tourist Flow to all destinations.
The very slow evolution that the destination of São Luís has in its competitiveness in terms of tourist flow in the period, Figure 3, shows little significant growth since 2010, which is reflected through the coefficient of variation of 11.30%, the second lower among competitors, which means that the destination has not advanced in effective indicators of competitiveness, such as infrastructure, services, attractions and public policies, considered determinants for the development of any destinations.

**Descriptive Analysis of Competitiveness Indicators according to the National Tourism Competitiveness Index**

Initially, descriptive measures were obtained for each competitiveness indicator for each destination. Regarding the descriptive measures, the extreme values (minimum and maximum), average, standard deviation, quartiles and coefficient of variation were obtained, so that the results are presented in Tables 5 and 6, of which the following abbreviations should be considered:

- SD = standard deviation;
- Min and Max = minimum and maximum values, respectively;
- Q1, Q2 and Q3 = 1st, 2nd and 3rd quartiles, respectively;
- CV = Coefficient of variation (in %)

Statistical analyzes were performed using the software R v. 3.6.2, and the theoretical basis from the point of view of statistics was based on Morettin & Bussab (2017), for descriptive analysis; McKight & Najab (2010), in addition to Katz & Mcsweeney (1980), for the Kruskal-Wallis non-parametric test with Bonferroni correction.

Table 7 presents the descriptive measures of the competitiveness indicators of all competing destinations, based on the National Tourism Competitiveness Index (Barbosa, 2015).

Table 7: Descriptive measures for the General Competitiveness Index of destinations indicator

| Destination | General Index | Average | SD | Min | Q1 | Q2 | Q3 | Max | CV |
|-------------|---------------|---------|----|-----|----|----|----|-----|----|
| Aracajú     | 60,33         | 4,40    | 52,40 | 58,25 |
| Fortaleza   | 66,76         | 4,02    | 60,60 | 64,15 |
| João Pessoa | 69,00         | 1,76    | 66,10 | 68,20 |
| Maceió      | 62,26         | 4,46    | 55,90 | 58,75 |
| Natal       | 63,26         | 2,24    | 59,20 | 62,30 |
| Parnaíba    | 43,00         | 1,27    | 41,20 | 42,40 |
| Recife      | 74,76         | 2,23    | 70,90 | 73,50 |
| Salvador    | 73,87         | 1,71    | 72,10 | 72,60 |
| São Luís    | 64,44         | 4,62    | 57,40 | 61,10 |
| Teresina    | 53,26         | 5,44    | 45,70 | 49,25 |

Source: Elaborated by the authors with data from National Tourism Competitiveness Index (Barbosa, 2015).

Table 8 shows the results of the indicators obtained only by the tourist destination São Luís. The relative position reached in each indicator is presented and commented in sequential order at the end of the table.
Results and Discussion

a) As for the competitiveness of the Tourist Flow: comparison and ranking

Among the results presented in Table 3, it can be observed that the performance of the Tourist Flow obtained by the destination São Luís places it in the 6th position among the capital cities of the northeast, however, with a low coefficient of variation, Figures 4 and 5, which shows a rather moderate growth over time.

Through the analysis of comparison of the Tourist Flow between destinations, Table 4, it can be seen that the destination São Luís presents a positive difference, considered significant, in relation to the destination Aracaju and a difference, also positive, but moderate or not significant, in relation to the destination João Pessoa.

In comparison with the destination Teresina, São Luís also presents a positive difference, and is considered significant. When compared with the destination Maceió, São Luís presents a negative difference, but, moderate or not significant, which shows a direct competition around tourist flow. In relation to the other destinations the negative difference is expressively significant.

Therefore, the 6th position in the tourist flow ranking results from this little evolutionary behavior in order to reach effective indicators that bring you closer to your nearest competitors.

Observing the data in Table 5, São Luís positions itself in 4th place, with its own nomenclature classified as “cd” in the ranking. However, the real competitive position, considering that three other destinations (Salvador, Fortaleza and Recife) occupy the first position, besides Natal in 2nd place and Maceió in 3rd, ranks São Luís 6th among the capitals.

b) As for the competitiveness indicators of the National Tourism Competitiveness Index, the individual analysis presented below starts with the general
index.

Once the descriptive measures have been taken, the destination São Luís ranks 5th in the General Tourism Competitiveness Index among the northeastern capitals. However, with trends of approximation of two competitors, Natal and Maceió, with very close indicators.

Regarding infrastructure, the destination São Luís is in the 7th position among the capitals, which requires effective actions of local public policies, aiming to reduce these disparities, since the tourist's perception of the destination infrastructure can be a factor in the choice or rejection of this specific destination, and the quality of the infrastructure affects the level of effectiveness and efficiency of the organizations that carry out or intend to carry out their activities at the destination site (Santos, Ferreira & Costa, 2014).

About the access indicator, it is a weakness that the destination São Luís presents, since it obtains the lowest average, placing itself in last place among the capitals. The value of the variation coefficient indicates a low relative variability of this indicator over the years, remaining below 10%, which indicates the need for actions that can mitigate this significant competitive disadvantage.

São Luís is ranked 7th in the Services indicator, among the other competitors. This result indicates that measures should be adopted, and depend on the joint and shared action of public managers, and the private initiative of all stakeholders participating in the local tourism trade.

The attractive indicator descriptions, present the destination São Luís in 6th place among the northeastern capitals, which indicates, once again, the need for a joint effort in order to identify and minimize the eventual promotional/organizational/managerial deficiencies.

The destination São Luís reaches the 4th place in the indicator Marketing and promotion of the destination, a sharp growth in recent years, thus obtaining the highest coefficient of variation verified in the period. It is important that this evolution reflects in the indicators Tourist and Attractive Services and Equipment, since Marketing is not and should not be an end in itself. Figure 2 presents boxplots for the set of General Index; Infrastructure; Access, Services, Attractions and Marketing indicators covering all destinations.

As for the public policy indicator, once again São Luís is ranked 7th among capitals, with low variation in its relative position. Public Policies refers to the municipal structure to support tourism; degree of cooperation with the state government; degree of cooperation with the federal government; planning for the city and for tourism activity; degree of public-private cooperation. It therefore reflects the source and cause of the deficiencies.

The regional cooperation indicator involves the following variables: governance; regional cooperation projects; regional tourism planning; itinerary; promotion and support to marketing in an integrated manner, whose performance places the destination São Luís in 7th place in the ranking among the capitals. It is a sensitive indicator regarding the destination management, for being directly related to the form and actions of governance, for taking care of the organizational structure of the destination, of the "coopetitive" behavior, of the stimulus and collective participation, of the planning and effective practices.

São Luís ranks 5th in the monitoring indicator, in relation to the other northeastern capitals. More recently, in 2017, the Observatório do Turismo do Maranhão (Maranhão Tourism Observatory) was created, linked to the Research Group "Tourism, Cities and Heritage" of the Federal University of Maranhão (UFMA) and the Secretariat of Culture and Tourism of Maranhão (SECTUR-MA), in order to supply this lack of data and information, (Santos & Pinheiro, 2019), which will possibly contribute to improving this indicator.

Local economy is an indicator in which the destination São Luís ranks 4th among the competing capitals. It is essential to analyze its relationships directly linked to related indicators.

The business capacity indicator, which covers the following variables: qualification and use of local staff; presence of national or international groups in the tourism sector; competition and entry barriers; business generation and entrepreneurship, placed the destination São Luís in 4th position, which in a way reflects its efforts and interests in tourism entrepreneurship, which may justify the position achieved in the local economy indicator.

Social Aspects is an indicator in which São Luís stands
out, since obtaining an average of 68.57 places it in 2nd place in relation to the other capitals, which shows one of its strong points in the competitiveness index. Figure 2 shows a block of boxplots for the Public Policies, Regional Cooperation, Monitoring, Economy, Business Capacity and Social Aspects indicators of all the analyzed destinations.

Regarding the indicator environmental aspects that encompasses the variables: structure and municipal environmental legislation; potentially polluting activities in progress; public water distribution system; public sewage collection and treatment system; collection and public disposal of waste; natural heritage and conservation units in the municipal territory, place the destination São Luís in 5th place among the capitals. Its improvement demands a set of actions mainly from the public sector.

The last index indicator, cultural aspects, places the destination São Luís in 3rd position in relation to all other cities, and shows the potentialities of the destination, even if it seems to clash with the results obtained in the Tourist and Attractive Services and Equipment indicators, given the cause and effect relationships that can be established between them.

The indicators’ behavior is shown graphically, in blocks, through the boxplots in Figures 4 and 5.

The evolutionary dynamics of the destination São Luís, concerning its own position in each indicator analyzed over the period 2008-2015, is presented graphically. Graphs 1 and 2 show the positive behavior of the General Index and Infrastructure indicators.
Graphs 3 and 4 express the behavior of São Luís destination in relation to the Access and Services indicators. The Access Indicator remains stable throughout the analyzed period and indicates one of the major weaknesses of the São Luís destination. Also, there was practically no evolution in the Services Indicator during the analyzed period, which requires specific actions that can reverse this competitive inertia.

Graphs 5 and 6 present the behavior of the Attractive and Marketing indicators. An expressive evolution in the Marketing indicator and a significant involution in the Attractive indicators. It should be noted that, as competitiveness is not an objective in itself, neither is marketing. Therefore, both make sense only if they provoke reflexes on the other indicators considered determinant for the success of a tourist destination.

Graphs 7 and 8 show a simultaneous regression in Public Policy and Regional Cooperation indicators. These are important indicators for destination competitiveness, their causes and consequences can be identified with a more in-depth analysis of their motivations.
Graphs 9 and 10 refer to the Monitoring and Local Economy indicators, and once again the destination is stabilized at the 5th position on the first indicator and loses a position on the second. As already mentioned, the advent of the creation and operation of the local Tourism Observatory may contribute to the improvement of the monitoring indicator.

The Indicators referring to Environmental Aspects and Cultural Aspects are presented respectively through Graphs 13 and 14.

Graphs 11 and 12 present a considerable evolution profile in the Business Capacity and Social Aspects indicators.
Final Considerations

Tourism stakeholders are classified as participants on the supply and demand sides. The players on the supply side are called destination management organizations, service providers and the host population; and those on the demand side are the tourists. The excellent performance of the supply-side players basically improves the level of satisfaction on the demand side, which is the ultimate goal of any destination management organization for growth and the capacity to sustain the destination (Nalakath & Koshy, 2019).

There is no tool capable of diagnosing all the difficulties and potentialities of a tourist destination. The purpose of this investigation, besides analyzing the competitive position that the tourist destination São Luís presents itself in relation to the other capitals of the Brazilian northeast, is to strategically diagnose the current situation of this and other regional tourist destinations, which allows to know the potentialities and limitations of the destination as a way to improve and enhance good practices in tourism management, especially at the regional level.

The increasing development of regional tourist destinations, therefore, always requires an analysis of the internal and external factors that affect their timing. The results obtained by the tourist destination São Luís, by means of the indicators evaluated in this article, should be considered as a contribution for the revision of the planning process, organization, management and control of the tourist activity, given the expressive potentialities that the destination disposes, and the evident fragilities exposed through the indicators, all susceptible of improvement.

Therefore, having a diagnostic tool as an essential part of the strategic planning process in regional tourist destinations is a big step on the way to solving the problems faced in such a complex and multifaceted activity as tourism.

Data update will certainly express another reality, however, with what is demonstrated through this study is that the destination São Luís, with its potentialities, can evolve in many aspects and positively change its position in the National Tourism Competitiveness Index, through punctual actions in the indicators in which it has demonstrated some weaknesses.

Such observations are based on the behavior of the coefficients of variation of the indicators, since part of them have remained stable over time, which obviously signals an indication for the actions of public and private authorities directly involved in local tourism activity.

The study’s limitations stem from the lack of updated official data that can reflect the reality at the present time. Empirical research to update data on competitiveness and tourism flow will help to supply decision makers with relevant information to guide their strategies, aiming at local development through tourism.

References

Alves, M. (2011). Reflexões sobre a pesquisa qualitativa aplicada ao turismo. Turismo em Análise, 22(3), 599-613. doi: 10.11606/issn.1984-4867.v22i3p599-613

Alves, L.S.F.; Dantas, E. W. C. (2016). Turismo e região nordeste brasileira: reconfiguração territorial litorânea da Colônia ao II PND. Geosul, Florianópolis, v. 31, n. 61, p. 7-32.

Añaña, E. S.; Pereira, M. L.; Anjos, F. A. (2015). Competitividade de Destinos Turísticos na Visão da Demanda: introdução de um novo método de avaliação. Revista Turismo em Análise, v. 26, p. 859-879.

Barbosa, E.G. R.; Espírito Santo, J.M.; Trinta, P. (2014). Leitura Urbana, São Luís, Prefeitura de São Luís/ Instituto da Cidade.
Bogéa, K. S.; Britto, S. R. S.; Pestana, R. G. (2005). Centro Histórico de São Luís Patrimônio Mundial. São Luís: Fundação Municipal de Patrimônio Histórico.

Barbosa, L. G. M. (2015). Índice de Competitividade do Turismo Nacional: Relatório Brasil, Brasília - DF: Ministério do Turismo.

Buhalis, D. (2000). Marketing the competitive destination of the future. Tourism Management, 21, 97-116.

Carvalho, P. M., Márquez, M. Á. & Montserrat Martínez. J. P.; Anjos, S. J. G.; Sohn, A. P. L. (2020). Competitiveness of Tourist Destinations a Comparative Analysis of São Luís, Maranhão Facing the Northeast Brazilian Capitals. Applied Tourism, 5(3), 01-19.
Santos, M. C.; Ferreira, A.M.; Costa, C. (2014). Influential factors in the competitiveness of mature tourism destinations. Tourism & Management Studies, eletrônica, v. 10, n. 1, p.73-81.

Santos, S. R.; Pinheiro, T. M. (2019). Instrumento de inteligência turística e tomada de decisão: o caso do Observatório do Turismo do Maranhão. Revista Cenário, [s.l.], v. 7, n. 12, p. 10-24, 30 jul. Biblioteca Central da UNB. http://dx.doi.org/10.26512/revistacenario:v7i12.25543.

Sette, I. R., Santos, G. E. O., & Uvinha, R. R. (2017). Modelos de Competitividade de Destinos Turísticos: Evolução e Críticas. Revista Acadêmica do Observatório de Inovação do Turismo, 11(1), 92-115.

Silva, M.; Costa, R. (2017). How is the Brazil’s projected image as a tourism destination perceived by the Portuguese tourist intermediaries: a comparative analysis. Revista Turismo & Desenvolvimento, eletrônica, v. 28, n. 27, p. 883-897.

Viajento. Disponível em https://viajento.com/. Acessado 01/08/2020.

Vieira, D.P.; Hoffmann, V. E.; Dias, C. N.; Carvalho, J. M. (2019). Determinant Competitiveness Attributes of Brazilian Sun and Sand Destinations. Revista Brasileira de Pesquisa em Turismo, [s.l.], v. 13, n. 2, p.128-143.

Zaccarelli, S.B., Telles, R., Siqueira, J.P.L., Boaventura, J.M.G., & Donaire, D. (2008). Clusters e Redes de Negócios: uma nova visão para a gestão dos negócios. São Paulo: Atlas.

Webster, C.; Ivanov, S. (2019). Transformar la competitividad en beneficios económicos: ¿estimula el turismo el crecimiento económico en destinos con más competencia?. (Trad. M. Forrest). Turismo y Sociedad, v. 25, p. 21-28, 10 jun. Universidad Externado de Colombia. http://dx.doi.org/10.18601/01207555.n25.01.