# Nature-Based Destination Image: An exploratory study on the formation of the destination image of the Legal Amazon.

**Abstract:** This study aims to measure the Nature-Based Destination Image (NDI) of the Legal Amazon among national tourists, verifying the image successors related to satisfaction, WOM /e-WOM, recommendation and revisit. With a predominantly quantitative approach, the study presents two purification stages: 1) group of 15 experts and 2) 151 national tourists. Exploratory Factor Analysis (EFA) was used to test convergence and reliability. The findings revealed that 58 variables are suitable to measure the destination image of the Legal Amazon, suggesting internal consistency with good convergence and reliability indexes among the components. As for the positive influence of the image successors, in general the results presented good performances, highlighting the WOM/e-WOM and Recommendation components, the revisit presented high standard deviation.

**Keywords:** Destination Image, Nature-Based Destination Image, Legal Amazon, Behavioral Intention.

#### INTRODUCTION

Tourist demand has been increasing the search for personalized destinations, escaping from the common and massified models, and in this movement, nature-based destinations have been gaining prominence (Serrano & Bruhns, 1997). Brazil, considered number 1 in natural attractions in the competitiveness ranking (Word Economic Forum, 2019), had a 27% growth in nature-based tourism (EMBRATUR, 2018), and is expected to grow even more due to the pandemic scenario, tending the search for places that promote isolation and especially "hotels surrounded by nature" (Medina et al., 2021, p. 48).

With this, managers and researchers who work with Nature-Based Tourism (TBN) in the world, in Brazil and in the Amazon, have been gathering efforts to understand how to build a favorable, positive and competitive Destination Image (DI), assuming the more attractive are the attributes of a destination the more competitive it will be (Santos Silva et al., 2016).

## LITERATURE REVIEW

#### **Nature Based Tourism - NBT**

Pointed as relevant to the economic growth of tourism, besides contributing to other types of tourism, Nature-Based Tourism - TBN has represented a strong trend worldwide (Brumatti, 2014; R. Buckley et al., 2001; Hall et al., 2009; Marzuki et al., 2014; Winter et al., 2020).

Defined broadly, its main characteristic is mainly linked to tourist practices carried out in natural environments, covering a wide variety of activities, where nature is the main tourist attraction (Breiby, 2015; Ralf Buckley, 2007; Lundmark & Müller, 2010; Newsome et al., 2002; Taczanowska et al., 2019; Weaver et al., 1999)

Chaves (2021) when analyzing the 78 articles published on TBN in recent years, found in the EBSCO and Tourism Publications - EACH/USP bibliographic bases, an absence of studies on ID dedicated to understanding image formation in nature-based destinations, there being an effort in the literature to try to list possible forms, types or activities related to TBN (Lundmark & Müller, 2010; Marzuki et al, 2011; Pires & Welter, 2011; Vespestad & Mehmetoglu, 2010; Villalobos-Céspedes et al., 2012; Weaver et al., 1999).

## **Nature Based Destination Imaging**

Destination image plays an important role in decision making, influencing destination choice (Chi & Qu, 2008; W. C. Gartner, 1989; Kim et al., 2012; Yen & Croy, 2016). Built after the visit, it can influence satisfaction and behavioral intentions, influencing new visitors to the destination (Potwarka & Banyai, 2016; Wang et al., 2015).

ID can be measured through the cognitive, affective, and conative components modeled most prevalently in the literature on ID (Chaves et al., 2020; William C. Gartner, 1994; Nghiêm-Phú, 2014; Tasci & Gartner, 2007). The cognitive components, refer to the perception about the physical characteristics, attributes of the destination, the affective is related to the emotions, representing the feelings that the tourist has for the destination (Baloglu & Brinberg, 1997; Beerli & Martín, 2004; William C. Gartner, 1994; Kesić et al., 2011). The conative, for a long time, was considered dependent and compared to behavioral intentions by the literature, however, recently it has been treated as independent and distinct from behavioral intentions with relevant contributions in the formation of the ID (Anjos et al., 2017; Pereira, 2018; Stylos et al., 2016, 2017).

Chaves (2021) analyzed 393 articles on ID verified the incipience in studies dedicated to the formation of the BNDI, with gaps in more comprehensive constructs, capable of measuring the BNDI that include the three components. To this end, the following hypotheses were constructed:

- ✓ H1 IDBN of the Legal Amazon can be measured by a three-dimensional construct (cognitive, affective and conative);
- ✓ H2 BNDI of the Legal Amazon positively influences the image successors (WOM and e-WOM, revisitation, and recommendation).

### **METHODOLOGY**

Aiming to measure the BNDI of the Legal Amazon destination among national tourists, also verifying the relationship with the image successors, there was the need to test the theoretical matrix of BNDI proposed by Chaves (2021), which consists of 99 variables related to BNDI, based on 36 scientific productions, extracted from a survey that analyzed 471 publications related directly and indirectly to BNDI.

The measurement involved two stages of purification and sampling: one intentional, with a group of 15 experts, for analysis of the constructs and adaptation of the variables to the reality of the Legal Amazon, applied in May 2021, under the technique of online Focus Group (Martins & Theóphilo, 2018); and another by convenience, with 151 national tourists who had already visited the Amazon, held in June 2021, through an online survey sent via Instagram and email.

For data analysis, Exploratory Factor Analysis (EFA) was used, with the implementation of the correlation matrix by the Weighted Least Squares (WLS) extraction method, (Hayton et al., 2004; Osborne et al., 2014), the convergent validity of the constructs with Bartlett's sphericity and KMO (Kairer-Meyer-Olkin) and the reliability of the results by McDonald's Omega (Field, 2011; Hair et al., 2009; Hayes & Coutts, 2020).

#### **RESULTS**

At the end of the analysis with the group of experts, of the 99 existing variables of the initial proposition, 71 variables were kept, analyzed by Content Validity Coefficient (CVC) (Hernandez-Nieto, 2002), and for the variables suggested by the qualitative approach (Sampieri et al., 2013).

In the second purification, with the national tourists, in addition to other factors such as, socio-demographic aspects, concentration of visitations, nature-based tourism profile, the formation of the basic components of the BNDI image of the Legal Amazon destination was verified. The results of this step showed that of the 71 variables, 58 presented good indicators to measure the BNDI of the destination of the Legal Amazon.

The factoring of the components suggested interpretability of the correlation matrix of the items, obtaining the respective Bartlett's sphericity values with p < 0.001 and KMO with values above 0.800 (Field, 2011), and reliability accuracy of the formation of the factors, Omega McDonald's with measures above 0.700 (Hayes & Coutts, 2020). Reinforcing the existence of internal consistency and convergence in much of the cognitive, affective and conative component constructs. The reliability indices were higher than the indices presented in studies conducted in

other destinations (Anjos et al., 2017; Carballo & León, 2017; Matovelle & Pillajo, 2017; Pereira, 2018; Scherer et al., 2015; Stylos et al., 2016, 2017; Suleman et al., 2015).

Regarding the successors of the formation of the image of the legal Amazon destination, we opted for descriptive analysis, containing the mean and standard deviation of the variables questioned to the Brazilian tourists. The results showed good performances, in highlight the components of WOM/e-WOM and recommendation, with averages of 6.79 and 6.67 and standard deviation of 0.48 and 0.62, satisfaction maintained a good evaluation with an average of 6.33 and a standard deviation of 0.80 respectively, however, revisit presented an average of 5.89 and a high standard deviation of 1.29, it is believed that certain factors such as, distance, cost and travel time may have compromised this result, future investigations of the real reasons are indicated.

## **IMPLICATIONS**

Este estudo apresentou contribuições teóricas, empíricas e gerenciais testando a Matriz Teórica de IDBN (CHAVES, 2021) no destino Amazônia Legal, junto aos turistas nacionais, atualizando discussões referentes à imagem de destino ID e IDBN. Indica-se testar os resultados junto aos turistas internacionais com uma amostra maior e com uso de estimadores com propriedades psicométricas ainda mais robustos, a fim de validar um modelo de mensuração da IDBN e comparar o comportamento dos resultados, ou ainda testar a matriz em outros tipos de destinos baseados na natureza.

#### **CONCLUSION**

The objective of this study, besides filling theoretical gaps related to the BNDI, contributes with the presentation of a scale of 58 attributes tested in the Legal Amazon destination. With good rates of convergence and reliability the hypotheses were confirmed, pointing out that the destination's management strategies should maintain good performances in relation to infrastructure, tourist activities, fauna and education and protection, inserting actions that highlight even more the Amazon flora, enhancing emotions and personal contributions that the destination can provide.

## References

- Anjos, F. A. dos, Pereira, M. de L., & Tennenberg, F. F. P. Von. (2017). Evaluation of the image of a coastal tourism destination in Brazil. *International Journal of Tourism Cities*, 3(4), 324–338. https://doi.org/10.1108/IJTC-09-2016-0032
- Baloglu, S., & Brinberg, D. (1997). Affective images of tourism destinations. *Journal of Travel Research*, *35*(4), 11–15. https://doi.org/10.1177/004728759703500402
- Beerli, A., & Martín, J. D. (2004). Factors influencing destination image. *Annals of Tourism Research*, 31(3), 657–681. https://doi.org/10.1016/j.annals.2004.01.010
- Breiby, M. A. (2015). Exploring aesthetic dimensions in nature-based tourist experiences. *Tourism Analysis*, 20(4), 369–380. https://doi.org/10.3727/108354215X14400815080361
- Brumatti, P. N. M. (2014). Sociedade, cultura e natureza: influências do ambientalismo no desenvolvimento do ecoturismo. *Caderno Virtual de Turismo*, *14*(3). http://www.ivt.coppe.ufrj.br/caderno/index.php/caderno/article/view/864
- Buckley, R., Pickering, C., & Weaver, D. B. (2001). *Nature-based tourism, environment, and land management.* (2001. The, Papers presented at the Fenner Conference on Nature Tourism and Environment, held in Canberra, Australia (ed.)).
- Buckley, Ralf. (2007). Adventure tourism products: Price, duration, size, skill, remoteness. *Tourism Management*, 28(6), 1428–1433. https://doi.org/10.1016/j.tourman.2006.12.003

- Carballo, R., & León, C. J. (2017). A influência da natureza artisticamente recriada na imagem dos destinos turísticos: os centros de arte, cultura e turismo de Lanzarote e seus vínculos com o marketing sustentável do turismo.
- CHAVES, P. C. P. R. (2021). MENSURAÇÃO DA IMAGEM DE DESTINO BASEADO NA NATUREZA: Uma proposta multidimensional de medição empiricamente validada. (Issue Outubro). Universidade do Vale do Itajaí UNIVALI.
- Chaves, P. C. P. R., Lobato, E., & Farias, F. (2020). Produção Científicas Sobre "Tourism Destination Image" Na Base EBSCO HOST. *No Prelo*, 1–24.
- Chi, C. G. Q., & Qu, H. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tourism Management*, 29(4), 624–636. https://doi.org/10.1016/j.tourman.2007.06.007
- EMBRATUR. (2018). 2018: natureza é principal atrativo de destinos-tendência no Brasil. https://www.gov.br/turismo/pt-br/assuntos/noticias/2018-natureza-e-principal-atrativo-dedestinos-%0Atendencia-nobrasil#:~:%0Atext=2018%3A natureza é principal atrativo de destinos-tend%C3%0A%AAncia no Brasil,-%0ADuas capitais sem&text=Rankings%2C listas e
- Field, A. (2011). Descobrindo a estatística usando o SPSS. In *Aletheia* (Issues 35–36).
- Gartner, W. C. (1989). Tourism image: attribute measurement of state tourism products using multidimensional scaling techniques. *Journal of Travel Research*, 28(2), 16–20. https://doi.org/10.1177/004728758902800205
- Gartner, William C. (1994). Image formation process. *Journal of Travel and Tourism Marketing*, 2(2–3), 191–216. https://doi.org/10.1300/J073v02n02 12
- Hair, J. F. J., Black, W. C., Babin, B. J., Anderson, R. E., & Burke, R. L. T. (2009). *Análise Multivariada de Dados* (6th ed.). Bookman.
- Hall, C. M., Müller, D. K., & Saarinen, J. (2009). Changement climatique, authenticité et marketing des régions nordiques: Conséquences sur le tourisme finlandais et la «plus grande marque au monde» ou «Les changements climatiques finiront-ils par tuer le père Noël?». *Téoros*, 28(1), 70–79. https://doi.org/10.7202/1024838ar
- Hayes, A. F., & Coutts, J. J. (2020). Use Omega Rather than Cronbach's Alpha for Estimating Reliability. But.... *Communication Methods and Measures*, 2458. https://doi.org/10.1080/19312458.2020.1718629
- Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor Retention Decisions in Exploratory Factor Analysis: A Tutorial on Parallel Analysis. *Organizational Research Methods*, 7(2), 191–205. https://doi.org/10.1177/1094428104263675
- Hernandez-Nieto, R. (2002). Contributions To Statistical Analysis: The Coefficients of Proportional Variance, Content Validity and Kappa (B. Publishing (ed.)).
- Kesić, T., Professor, P. D., Pavlić, I., & Assistant Professor, P. D. (2011). TOURISM DESTINATION IMAGE FORMATION-THE CASE OF DUBROVNIK, CROATIA FORMIRANJE IMIDŽA TURISTIČKE DESTINACIJE-PRIMJER DUBROVNIKA, HRVATSKA. In *Ivana Pavlić* ■: *Vol. XXIII* (Issue 1). Sveučilište u Zagrebu, Ekonomski fakultet Zagreb.
- Kim, K., Hallab, Z., & Kim, J. N. (2012). The Moderating Effect of Travel Experience in a Destination on the Relationship Between the Destination Image and the Intention to Revisit. *Journal of Hospitality Marketing and Management*, 21(5), 486–505.

- https://doi.org/10.1080/19368623.2012.626745
- Lundmark, L., & Müller, D. K. (2010). The supply of nature-based tourism activities in Sweden. *Tourism*, *58*(4), 379–393.
- Martins, G. de A., & Theóphilo, C. R. (2018). *Metodologia da Investigação Científica para Ciências Sociais Aplicadas* (E. Atlas (ed.)).
- Marzuki, A., Hussin, A. A., Mohamed, B., Othman, A. G., & Som, A. P. M. (2011). Assessment of nature-based tourism in South Kelantan, Malaysia. *Tourismos*, 6(1), 281–295.
- Marzuki, A., Rofe, M., & Hashim, N. A. M. (2014). Disputes on nature-based tourism development in northern peninsular Malaysia. *Tourism Analysis*, 19(4), 525–530. https://doi.org/10.3727/108354214X14090817031314
- Matovelle, P. A. T., & Pillajo, C. C. (2017). Analysis of the Image of Quito, Ecuador, as a Tourist Destination. *Revista Rosa Dos Ventos Turismo e Hospitalidade*, *10*(1), 106–118. https://doi.org/10.18226/21789061.v10i1p106
- Medina, B., Bastos, G., & Godoy, M. (2021). Estudos de Turismo: O Novo Normal (pós-vacina) (SEBRAE (ed.)).
- Newsome, D., Moore, S. A., & Dowling, R. K. (2002). Natural Area Tourism: Ecology, Impacts and Management. *Natural Area Tourism*, 72–77. https://doi.org/10.21832/9781845413835
- Nghiêm-Phú, B. (2014). A review of destination image studies from 2008 to 2012. In *European Journal of Tourism Research* (Vol. 8, Issue 1).
- Osborne, J. W., Costello, A. B., & Kellow, J. T. (2014). Best Practices in Exploratory Factor Analysis. In *Best Practices in Quantitative Methods* (Issue January 2005). https://doi.org/10.4135/9781412995627.d8
- Pereira, M. de L. (2018). Construção e Validação Empírica de Uma Escala Multidimensional Para Mensurar A Imagem dos Destinos Turísticos Costeiros. Universidade do Vale do Itajaí UNIVALI.
- Pires, P. dos S., & Welter, B. M. (2011). Tipologias dos Atrtivos Naturais nos Destinos de Turismo na Natureza no Brasil e Identificação dos Seus Componentes Biofísicos, Através do Modelo de Composição da Paisagem. *Revista Brasileira de Ecoturismo (RBEcotur)*, 4(4). https://doi.org/10.34024/rbecotur.2011.v4.5964
- Potwarka, L. R., & Banyai, M. (2016). Autonomous Agents and Destination Image Formation of an Olympic Host City: The Case of Sochi 2014. *Journal of Hospitality Marketing and Management*, 25(2), 238–258. https://doi.org/10.1080/19368623.2014.1002146
- Sampieri, R. H., Collado, C. F., & Lucio, M. del P. B. (2013). *Metodologia de Pesquisa* (E. Penso (ed.)).
- Santos Silva, M. M., Albayrak, T., Caber, M., & Moutinho, L. (2016). Key destination attributes of behavioural intention: An application of neural networks. *European Journal of Tourism Research*, 14, 16–28.
- Scherer, F. L., Hahn, I. S., Stein, L. C., & Barpp, D. B. (2015). Motivações, dimensões da imagem e qualidades afetivas dos lugares: a escolha do destino e as fotos em viagens de turismo e lazer. *Revista Brasileira de Pesquisa Em Turismo*, *9*(3), 442–458. https://doi.org/10.7784/rbtur.v9i3.865
- Serrano, C. M. de T., & Bruhns, H. (1997). Viagens à Natureza: Turismo, cultura e ambiente.

- Stylos, N., Bellou, V., Andronikidis, A., & Vassiliadis, C. A. (2017). SLinking the dots among destination images, place attachment, and revisit intentions: A study among British and Russian tourists. *University of Bristol*, 15–29.
- Stylos, N., Vassiliadis, C. A., Bellou, V., & Andronikidis, A. (2016). Destination images, holistic images and personal normative beliefs: Predictors of intention to revisit a destination. *Tourism Management*, *53*, 40–60. https://doi.org/10.1016/j.tourman.2015.09.006
- Suleman, N. R., Rufaidah, P., & Ariawaty, R. N. (2015). The Influence Of Destination Personality And Perceived Value On Destination Image In National Park Bunaken And Wakatobi. *International Journal of Scientific & Technology Research*, 4(8), 327–337.
- Taczanowska, K., González, L. M., García-Massó, X., Zieba, A., Brandenburg, C., Muhar, A., Pellicer-Chenoll, M., & Toca-Herrera, J. L. (2019). Nature-based tourism or mass tourism in nature? Segmentation of mountain protected area visitors using self-organizing maps (SOM). *Sustainability (Switzerland)*, 11(5). https://doi.org/10.3390/su11051314
- Tasci, A. D. A., & Gartner, W. C. (2007). Destination image and its functional relationships. *Journal of Travel Research*, 45(4), 413–425. https://doi.org/10.1177/0047287507299569
- Vespestad, M. K., & Mehmetoglu, M. (2010). The relationship between tourist nationality, cultural orientation and nature-based tourism experiences. *European Journal of Tourism Research*, 3(2), 87–104.
- Villalobos-Céspedes, D., Galdeano-Gómez, E., & Tolón-Becerra, A. (2012). International demand for nature-based tourism in Costa Rica: Socio-demographic and travel indicators. *Tourismos*, 7(1), 269–287.
- Wang, D., Chan, H. L. (Rena), & Pan, S. (2015). The Impacts of Mass Media on Organic Destination Image: A Case Study of Singapore. *Asia Pacific Journal of Tourism Research*, 20(8), 860–874. https://doi.org/10.1080/10941665.2014.948464
- Weaver, D., Faulkner, B., & Lawton, L. (1999). *Nature-based tourism in Australia and beyond: A preliminary investigation in David Weaver, 1956.* 30. https://sustain.pata.org/wp-content/uploads/2015/02/NatureTourism.pdf
- Winter, P. L., Selin, S., Cerveny, L., & Bricker, K. (2020). Outdoor recreation, nature-based tourism, and sustainability. *Sustainability (Switzerland)*, *12*(1), 1–12. https://doi.org/10.3390/SU12010081
- Word Economic Forum. (2019). *Travel and Tourism Competitiveness Report*. http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/country-profiles/#economy=BRA
- Yen, C. H., & Croy, W. G. (2016). Film tourism: celebrity involvement, celebrity worship and destination image. *Current Issues in Tourism*, 19(10), 1027–1044. https://doi.org/10.1080/13683500.2013.816270