Articles and essays

Innovation in Regional Tourism and Competitiveness: conceptual approach and application trial

Rosana Mara Mazaro[a]

Abstract

Although the number of studies on regional competitiveness and innovation has considerably grown in literature, there is still a notable lack of research addressing the convergence between the two themes, especially concerning the symmetry between the attributes, dimensions, and scale of application of each construct. Taking as premise that innovation is a factor of competitiveness for tourist destinations and regions and that, therefore, they are matters that should be addressed at the same time, this study addresses this gap and suggests a single construct integrating factors that affect the capacity for innovation and competitiveness of these regions. Qualitative analysis of the content of the different models of competitiveness of destinations in comparison with the models of innovation generated significant results, among them the identification of important convergence between factors that influence both phenomena, the classification of the factors between convergent and complementary, and the proposition of a holistic model of innovation for regional-scale analysis with specific focus on tourism.

Keywords: Tourism; Innovation; Regional Systems; Competitiveness.

Resumo

Inovação em turismo e competitividade regional: abordagem conceitual e ensaio de aplicação

Embora o número de estudos sobre competitividade e inovação regional tenha crescido consideravelmente na literatura, ainda persiste uma notável ausência de pesquisas que abordem a convergência entre os dois temas, especialmente no que trata da simetria entre os atributos, dimensões e escala de aplicação de cada constructo. Tendo como premissa que a inovação é um fator de competitividade para os destinos e regiões turísticas e que, portanto, são assuntos que devem ser tratados concomitantemente, este estudo aborda essa lacuna e sugere um constructo único que congregue fatores que condicionem a capacidade de inovação e a competitividade dessas regiões. A análise qualitativa do conteúdo dos diferentes modelos de competitividade de destinos em comparação com os modelos de inovação gerou resultados significativos, dentre esses a identificação de importante convergência entre fatores que condicionam ambos os fenômenos, a classificação dos fatores entre convergentes e complementares, e a proposição de um modelo holístico de inovação para análise em escala regional com recorte específico para o turismo.

Palavras-chave: Turismo; Inovação; Sistemas Regionais; Competitividade.

a. Ph.D. in Business Administration and Tourism. Master's degree in Public Business Administration. Bachelor's degree in Business Administration. Permanent faculty member of the Graduate Program in Tourism at the Federal University of Rio Grande do Norte. Leader of the ESCRITUR research group. Natal, Rio Grande do Norte, Brazil. E-mail: rosanamazaro@uol.com.br

Resumen

Innovación en turismo y competitividad regional: enfoque conceptual y ensayo de aplicación

Aunque los estudios sobre la competitividad y la innovación en las regiones han crecido considerablemente en la literatura, todavía hay una notable ausencia de investigaciones que aborden la convergencia entre las dos cuestiones, especialmente en el tratamiento de la simetría entre los atributos, las dimensiones y el rango de aplicación de cada uno de estos constructos. Con la premisa de que la innovación es un factor de competitividad para los destinos y regiones turísticas y, por lo tanto, son cuestiones que deben abordarse al mismo tiempo, este estudio aborda este vacío en las investigaciones y sugiere una única construcción que reúne a los factores que influyen en la capacidad de innovación y la competitividad de estas regiones. El análisis cualitativo del contenido de los diferentes modelos competitivos en comparación con el análisis de los modelos de innovación generó resultados significativos, entre ellos la identificación de los factores que determinan la convergencia entre ambos fenómenos: la clasificación de los factores entre convergentes y complementares y la proposición de un modelo integral de innovación para el análisis en escala regional con un enfoque específico para el turismo.

Palabras clave: Turismo; Innovación; Sistemas Regionales de Competitividad.

INTRODUCTION

At the turn of the century, the competitive imperative for all productive sectors has been summarized in the book of Trout (2000), which already predicted in its title: to differentiate or to die. Today, after more than a decade of transition and transformation in the competitive context, it seems possible to update the prediction for a new dichotomy: to innovate or to die.

Research on innovation in the manufacturing sector was the foundation for the first trials for development of studies on innovation in the service sector, still in an early stage of conformation of a specific referential field. According to Hjalager (2010), the emerging service economy, mostly driven by software development, had its extraordinary expansion at the end of the last millennium, which, in turn, radically changed the concept of innovation, incorporating to the concept immaterial attributes and intangible elements in its definition and application.

If in the organizational sphere innovation is generally related to new products, improvement of existing products, technology and management processes, at the macroeconomic level innovation is closely linked to the development of locations and to the welfare of its people. Innovation is now the central axis of competitive strategy not only for businesses and organizations, but also for countries and regions.

This is the perspective of innovation that motivates this essay and that attempts to understand its significance and impacts on the competitiveness of regional economies, in this case, with particular interest for the tourism sector (WEF, 2007; RODRÍGUEZ; WILLIAMS; HALL, 2014). The study is an analysis of innovation in tourism from a regional perspective based on intrinsic factors that distinguishes it from the other productive sectors and of the importance of the integration and interdependence of the value chain that composes the global supply of a destination, which requires macro approaches and focus on innovation.

The effort here is to integrate research on innovation to research on competitiveness of destinations, considering the direct relation of influence of a phenomenon on the other. To this end, the first part deals with the evolution of studies on competitiveness of tourist destinations and compares the different theoretical and methodological models to identify and categorize what are here called basic attributes of competitiveness of destinations.

The second part is dedicated to the state of the art on innovation, especially on understanding its meaning for countries and regions and on efforts to actualize the concept and identify the basic attributes of innovation in destinations. The third part deals with the comparison between the two constructs, comparing and categorizing the attributes of each one, to finally propose a referential model of innovation from the perspective of tourism and adjusted to the regional scale.

The proposed model can be applied as methodological basis for characterization of regional systems of innovation in tourism and to assess the capacity of these regions to innovate. The results of this evaluation will enable the constitution of types of regions according to the potential to innovate, and may guide the planning and management of destinations for choosing strategies adjusted to a new and challenging competitive context.

LITERATURE REVIEW

Competitive imperatives for tourist destinations

Advancement in the understanding of factors that determine favorable conditions of competitiveness for tourist destinations – specially by the inclusion of sustainability criteria as strategic conditioners – was translated by means of distinguished theoretical-methodological models that synthesize the complex tourist system and its network of relations (DWYER; KIM, 2003; GENEST; LEGG, 2003; GOOROOCHURN; SUGIYARTO, 2003; RITCHIE; CROUCH, 2003; WEF, 2007). Chart 1 presents the main characteristics of each model and compares their components to demonstrate the convergence between their attributes and determinant factors for competitiveness.

Chart 1 – Comparison between the models of competitiveness of tourist destinations

Models	TTCI-WEF (2013)	Destinos Indutores – MTUR (2007)	Comp&tenible Model-MAzaro (2006)	Determinants and Indicators – Kim and Dwyer (2003)	Premier-ranking – Gennest and Legg (2003)	Competitividade e Destinos – Ritchie and Crouch (2003)
			Characteristics			
Nature	Methodological-applied	Methodological/applied	Conceptual-methodological	Conceptual-methodological	Methodological applied	Theoretical/referential
Motivations	Institutional Studies	Consultancy studies	Academic Studies	Academic Studies	Consultancy studies	Academic Studies
Objectives of the model	Applied to assess and compose a ranking of competitiveness among 140 countries that are significant in tourism in the world, including Brazil.	Apply in the diagnosis of self-assessment and competitive classification of Brazil destinations.	Propose a conceptual model that simultaneously serve as an instrument for monitoring the evolution of tourism in the destinations.	Guide the analysis and studies that seek to understand the interrelation and motility between the variables of the tourist system.	Apply in the diagnosis of self-assessment and competitive classification of Canada destinations.	Establish conceptual model of competitiveness and sustainability for tourist destinations.
Dimensions and Factors discussed	Subindices: legal framework, business environment, infrastructure, human, cultural and natural resources.	Macro dimensions: infrastructure, tourism, public policies, economics and sustainability.	Governance: planning, management, coordination, cooperation, strategic vision. Competitiveness: resources, attractions, positioning, profitability, satisfaction, tourist. Sustainability: sociocultural, environmental.	Endogenous and created resources, support factors, administration, preservation, security, demand, market.	Essential resources and attractions quality and critical mass, satisfaction and value, accessibility, equipment and services, profitability, image, marketing, innovation, local sustainability.	Innate resources and essential attractions; support resources; administration of destination; policy. Planning and development; determining attributes and qualifiers.

Source – Prepared by the author (2014)

As can be observed in Chart 1, the factors, attributes, or variables that compose this context seem already identified and established properly in the model of Ritchie and Crouch (2003), in essence the most theoretical among all reviewed here, having the merit of being exhaustive in the dimension in which it must be. The methodologies suggested by the premier-ranking of Genest and Legg (2003), applied in Canada destinations and used by the Getulio Vargas Foundation in Brazil (BRASIL; FGV; SEBRAE, 2008), are important for defining the dimensions and attributes of competitiveness for destinations, and confirm the multidimensionality of factors liable to interference and impacts for tourism.

However, these evaluation models are dichotomous and proper for the exercise of a diagnosis that is not aimed at evaluating the variables in a qualitative or explanatory manner. From these conformations, the studies have evolved to attempts at understanding the interrelations between the variables and dimensions of local tourism from a competitive and sustainable perspective, as well as efforts have been undertaken in an attempt to evaluate and measure competitiveness patterns related to global or referential parameters.

Following this route of proposition, the model of Dwyer and Kim (2003) goes beyond defining the dimensions and critical factors for local tourism and suggests a methodology for assessing the competitiveness of destinations by using statistical tools that can identify or quantify the motility of variables, that is, explain systemically the logic between decision and action.

Studies that used the model of the authors showed important influence of the governance variables on the competitive achievements and results, including factors of impact on global aspects, related to local development and sustainability. These studies highlight the role of management as responsible for the decisions that will impact the tourism in the destinations, which, in turn, will influence the competitive performance in the short term and, at the same time, determine the vector of development for the future (DWYER; KIM, 2003).

In turn, the Comp&tenible (MAZARO, 2010) has as principle the motility of management variables on the competitiveness and sustainability of tourist destinations, synthesizing and organizing in different dimensions the factors that affect the strategic fit between the opportunities and macroenvironmental determinants, in this context, translated by the sustainability imperatives. These dimensions represent what was anticipated to affirm about the motility of the components of management on results and impacts of tourism in the destinations.

With specific focus on the tourism sector, the World Economic Forum has promoted since 2005 studies on the competitive performance in tourism of different countries from all regions of the world, resulting in the Travel & Tourism Competitiveness Index (T&TCI). The T&TCI consists in a methodology for evaluation considered as "a global strategic tool to measure the factors and policies that make it attractive to develop the travel and tourism sector in different countries." (WEF, 2011, p. xiv, our translation).

The goal of the T&TCI is to provide a comprehensive strategic tool to measure "the set of factors and policies that enable the sustainable development of the Travel & Tourism sector, which contributes to the development and competitiveness of a country" (WEF, 2015, p. v, our translation). By providing detailed assessment of the Travel & Tourism (T&T) environments of countries around the world, the results can be used by all stakeholders to work together to improve the competitiveness of the industry in their national economies.

Approaches of innovation in tourism

Innovation is the main competitive challenge today and will continue to be in the future. It is a phenomenon that interests and affects all segments of society. The concern with innovation gains importance as the pressures of competitiveness grow in the globalized economy, and parts of the value chain or entire value chains are gradually moved to economies with more attractive productivity conditions in the view of the capital. Even the service sector, traditionally considered nontradable, is adapting to the changes in the international economy and to the changes in the globalized economic activities, aligning with a new order (OECD, 2006).

The definition proposed by Schumpeter (apud SARKAR, 2010) is still the most referenced and used when the effort is to understand what is innovation. According to the author, innovation implies two fundamental elements: creativity and new ideas. The term "innovate" is closely linked to the verbs "implement," "undertake," "enable," "effect" and "consolidate" ideas. Briefly, innovation is a viable, feasible and profitable invention.

Innovation in tourism has also gained importance and is currently a topic of interest to national and international research and development institutions, governments, investors and, certainly, the tourist (HJALAGER, 2010). These studies, classified as services related to travel and hospitality, are even more recent, and, on the sidelines of the advances of academic research, the tourism sector has demonstrated over time a major capacity for innovation and creativity, concepts closely related in the current literature (HALL; WILLIAMS, 2008).

Over the past two decades there has been increasing focus on the theme of innovation in the tourism sector. According to Hjalager (2010), innovation in tourism is classified as:

- Innovations of products or services: refer to changes observed directly by the client and regarded as new, both in the sense of never having been seen before or new to the particular or destination business;

- Process innovations: usually refer to behind-the-scenes initiatives aimed at efficiency, productivity and flow. Investments in technology are the anchor of the innovation process, sometimes in combination with regenerated layouts for manual labor operations;

- Managerial innovations: new ways of organizing the internal collaboration, guiding and training staff, building careers and compensating for the work with pay and benefits, and can also be designed to improve job satisfaction and foster internal knowledge and competence resources;

- Innovations in administration: changes in the way the organization's global communication with customers is conducted, and how the relations between the service provider and the customer are constructed and maintained;

- Institutional innovations: constitution of new competences or combination of those already established between organizations for interinstitutional

collaboration, effected by means of bilateral agreements for the formation of alliances and networks.

Institutional innovations are the focus of this study, considering that the structures and guidelines for management of destinations are always oriented towards interinstitutional cooperation and participation and have their essence in the combination of competences. According to Lundvall et al. (2002), in this perspective, innovation is an inherently territorial and localized phenomenon, highly dependent on resources that are connected to specific locations and whose reproduction would be impossible elsewhere. The author defines four forces that drive development: the flexible organization of production; the diffusion of innovations and knowledge; change and adaptation of the institutions; and the urban planning of the territory.

Interaction between these forces would produce the necessary synergy able to leverage an endogenous development that would allow for a new alternative of economic growth no longer built from the outside in, but resulting from a local economic dynamics. At the same time, this development would be based on the valorization of local ethics and cultural expressions, necessary for the consolidation of cooperative practices, the growth of trust between individuals and groups, in addition to the protection of the cultural and environmental heritage of the territories involved (LONGHI, 2005).

The European Union has set as its main objective for the coming decades leading, competing and thriving as a greener economy, of rapid and sustainable growth, stimulating the creation of high levels of knowledge-based jobs and social progress. To this end, it has established research and innovation as central axis of its development policies throughout this timeframe, underlining their importance as one of today's main competitive challenges for countries and regions. Although growth, employment and competitiveness were considered major challenges for Europe in the past decade, innovation was added to the core elements of the European strategy to tackle the new competitive challenges posed by the post-crisis world (SOETE, 2010).

The European tradition in the use of models applied to macro sectors, as well as models to measure and simulate the impact of public policies of different natures, advocated the development and proposal of a methodology called Innovation Union Scoreboard (IUS), which serves as a method for monitoring competitive performance in terms of innovation in the countries and as a tool for assessing the implementation of the objectives of the Europe 2020 Innovation Union, European development plan focusing on innovation (UNU-MERIT, 2015). Essentially, the indicators, which will be explored in detail below, reflect the fundamental and basic conditions that allow countries to be more or less innovative.

Important in these constructs is the effort to actualize such complex and diffuse concepts, such as innovation, and translate into indicators here sistematizedly arranged in the sequence of a systemic, dynamic and interrelated process. These elements combined in a given geographical area could constitute a regional innovation-friendly system. According to Hall and Williams (2008), from a perspective of regional innovation, tourism in the context of this strategy is an enabler of human mobility, stimulates the formation of networks and can contribute effectively to regional innovation and development in the long term, by establishing connections with other sectors and vectors of territorial development.

Hall and Williams (2008) suggest a typology of regional innovation systems (RIS), established based on an assessment of the relative technological trajectories of the regions and of their diversity. The capacity to harness competences and generate innovation is characterized as follows:

- Genuine: These are regions where new combinations really take place and best practices occur. All stages of the innovation cycles may exist within them, as well as their main actors are capable both of incorporating new features and of inspiring other innovations, thus creating a complementary virtuous cycle. These regions also maintain competitive and collaborative relations with other leaders in their segments;

- Incremental: This category of RIS has as main characteristic the capacity to adopt external innovations still at the beginning of the life cycle and improve or enhance them. With that, they develop differential competitive strategies, which potentially leads them to better exploration of their regional competences and to increase in quality and supply of products and services;

- Followers: These are the RIS in which innovations diffuse relatively slowly. Generally they adopt imitation strategies that produce products developed without significant improvements on the original innovation, but which still have a market. In the case of services such as tourism, a real approach of the reproduction can be innovative in regional markets, but cannot sustain competitive advantage in greater geographical and value scale.

As for the competitive strategy, genuinely innovative regions adopt high-road strategies, fundamentally based on learning, connectivity, communication and other intangible factors, such as intellectual capital and institutional capacity, which reflect in high levels of comfort for visitors and residents, and in valorization of diversity (HALL; WILLIAMS, 2008). On the other pole, follower regions adopt low-road strategies, which focus on traditional factors of comparative advantage (RITCHIE; CROUCH, 2003), such as location, land, labor, capital, infrastructure and access to markets and other key production elements.

Low-road strategies are generally considered to be linked to a vision of growth of property concerned with the "packaging" of the local product, and to the generation of factoids to ensure media attention. For tourist destinations, this type of strategy can lead to replication of a number of the location's characteristics that cause the homogeneity of the market and undifferentiated offer. Also, they represent the reflection of choices of managers who use the so-called "off-the-shelf" (without own practices) or "best practice" (best practices of others).

This process was described by Doel and Hubbard (2002) as being part of the so-called "urban entrepreneurship," in which many of the innovations and investments aimed at making certain locations more attractive to locals and tourists are quickly imitated in other places, thus making fleeting the competitive advantage within a category of cities and destinations. This means to say that the regional competitiveness and solutions designed for a given locale, when inspired by the experience of other regions, can err due to lack of originality and of exploration of genuine regional competences.

Important in this classification are the general characteristics that configure and can differentiate a region from another, reinforcing the intangible components related to the social capital and to the development paradigm as main promoters and supporters of a situation that is more favorable for innovative initiatives and for the creation of inimitable competitive differentials. Thus, the regional and local levels are understood here as important spaces for innovation and this is especially relevant for tourism, since its provision is based on attributes of the location and whose strategic movement reinforces the originality as a competitive determinant capable of sustaining differentials.

METHODOLOGY

It is characterized as a theoretical and empirical study of qualitative nature. A conceptual research (XIN; TRIBE; CHAMBERS, 2013) that uses comparative method between theoretical constructs already consolidated to suggest conceptual typology of regional innovation system with specific focus on tourism, here named Ristur. Using the content analysis of sources such as books, scientific articles, academic essays, case studies and other indexed and classified publications on competitiveness and innovation in tourism, it was possible to identify different constructs and categorize them according to criteria of comprehensiveness, focus and goals.

This exploratory analysis enabled the first categorization of models and facilitated the comparison between dimensions, sub-dimensions, and specific variables used to explain each phenomenon separately. The comparison was used to choose those models considered of greater scope, importance and representativeness, due to concentrating the attributes of competitiveness and innovation. We chose for in-depth analysis and comparison between contents the IUS (UNO-MERIT, 2015) and the T&TCI (WEF, 2015).

The confrontation between models and their analysis were carried out based on their main pillars, considering that they represent a set of interrelated indicators and that they are able to reflect a certain condition or situation more broadly than the comparison between specific indicators. Due to being in an intermediate dimension of the model, it is considered that the criterion of comprehensiveness is met, since it is not as global as a sub-index and not as specific as an indicator.

The dimensions were analyzed individually and then compared with one another, in order to identify similarities, complementarities or discrepancies. This in-depth content analysis allowed for a first classification of the attributes into two distinct groups: the convergent and the complementary. A second classification was then suggested based on the aggregation of attributes into three sub-dimensions of analysis, as in the models analyzed, gathering what is believed to be the conditions for innovation in tourist regions and that compose the referential model proposed here.

RESULTS AND DISCUSSION

Innovation is the focal point of current policies due to its remarkable contribution to competitiveness (RODRÍGUEZ; WILLIAMS; HALL, 2014). Therefore, as stated before, the intention here is to discuss these two topics as in-

tegrated and convergent, especially in the context of the tourist destinations. Confrontation between the models representing both constructs enabled the first classification of the attributes into convergent and complementary. Chart 2 presents the macro dimensions and components of each model, synthesizing the comparison.

Chart 2 – Attributes of competitiveness of the T&TCI and IUS

Favorable environment	Enablers
1. Business environment (12)	1. Human Resources (3)
2. Safety and security (5)	2. Attractive, open, and excellent R&D system (3)
3. Health and hygiene (6)	3. Research funding and support (2)
4. Human resources/labor market (9)	**Business Activities**
5. Preparation of ICT (8)	4. Investments in R&D (2)
T&T policy	5. Entrepreneurship and cooperation (3)
6. Prioritization of travel and tourism (6)	6. Intellectual capital (4)
7. International opening (3)	**Results**
8. Competitiveness in price (4)	7. Innovators (3)
9. Environmental sustainability (10)	8. Economic impacts (5)
Infrastructure	
10. Air transport infrastructure (6)	
11. Port infrastructure (7)	
12. Tourist services (4)	
Natural and cultural resources	
13. Natural resources (5)	
14. Cultural resources (5)	

Source – Crotti and Misrahi (2015, our translation)

The IUS-EU was presented during the European Innovation Scoreboard, in 2001, as a methodology to evaluate the performance in innovation of the European countries. The global result of the ranking enables benchmarking the innovation performance of the 27 Member States of the European Union and of their main competitors such as Japan and the United States of America and of the emerging nations of the Brics (Brazil, Russia, India, China and South Africa) (UNU-MERIT, 2011). The 14th edition, published in 2015, follows the same methodology of the first edition, demonstrating stability and ownership of its content.

The IUS is measured using a composite indicator named Innovation index, synthesized in three sub-indices: enablers, business activities, and results – eight dimensions and a total of 25 indicators. The numbers in parentheses represent the indicators used to measure each variable. The sub-index "enablers" is formed by a set of indicators that capture the main drivers of innovation performance external to businesses, differentiating them into three dimensions of innovation:

- Human resources: includes indicators that measure the availability of workforce that is highly qualified and educated, for example, doctoral-level training and specialized publications of high impact;

- Research systems: measures the international competitiveness of scientific bases, comprising international publications, citation of publications, and exchange between doctoral students;

- Funding: measures the availability of funding for projects in innovation and of investments, such as venture capital, as well as the support of governments in R&D spending.

The sub-index "business activities" captures the innovation efforts internal to the business and evaluate its investment in R&D and other investments, in order to generate innovations. The indicators also capture the collaborative efforts between innovative businesses and research collaboration between the public and private sector, as well as different forms of Intellectual Property Rights (IPR) generated as income generated in the process of innovation, including PCT patent applications, community trademarks and community designs or models. Taking as premise that innovation is something tangible, viable and profitable, the second dimension of analysis deals with the business generated by innovation, as a result of the positive combination of conditions, or process inputs.

The third sub-index deals with outputs and tries to capture the effects of innovation activities by means of indicators that measure the volume of introduction of innovations in the market, covering both the technological and nontechnological innovations. Economic success of the innovation in the employment in knowledge-intensive activities and the internationalization of innovation are also factors considered. In this perspective, the third and last dimension of the model completes the cycle proposed by the Index, since it evaluates the results of the process with the effectiveness of the innovation.

With specific focus on tourism, the T&TCI coordinated by the World Economic Forum (WEF) compares the competitiveness in tourism between the countries and includes detailed profiles for each of the economies studied. It is composed of four sub-indices, fourteen pillars and ninety indicators. Different from the IUS, the composition of the Index has undergone some changes over the years, resulting in the abandonment, substitution or addition of new indicators. Initially it contained three sub-indices and thirteen pillars. The latest version, published in 2015, contains four sub-indices and, from 2011, distributes ninety indicators into fourteen pillars.

The sub-index "favorable environment" captures the general configurations necessary to operate in a country; the sub-index "T&T policy" captures conditions relating to specific policies or strategic aspects that affect T&T directly; the sub-index "infrastructure" evaluates the availability and quality of the physical infrastructure of each country; and the sub-index "natural and cultural resources" captures the main potential travel motivators for the country. Compiled for the first time in 2007, its sixth edition allows the countries to follow the evolution of the conditions of competitiveness over time and use it as a base of information for decision-making on destinations.

Regarding content, the proposition of the T&TCI does not exactly suggest a systemic process, as does the IUS, therefore not suggesting a cause-and-effect relation between the categories or sub-indices of indicators. However, although

spontaneously placed, the first sub-index gathers indicators that condition the development of tourism, and that in the model are called **enablers**, that is, they represent elementary basic conditions so the tourism development process can be started or boosted.

In turn and intentionally, the IUS also characterizes the set of indicators that make up the first sub-index as **enablers** of innovation, which means that without the presence of these conditions the innovation process can be seriously compromised, or even null. This is the first important convergence between the indicators of the models, which reinforces our premise that they are interrelated and interdependent phenomena. Although the IUS focuses more on indicators related to intellectual capacity and human intelligence and the T&TCI also incorporates structural elements, both the pillars and dimensions of each model address variables external to the business environment, that is, the socioeconomic cultural macroenvironment.

It is precisely in the macroenvironment where important strategic movements that have direct impact on the phenomena of innovation and competitiveness occur (KIM; MAUBORGNE, 2003). The human factor, because of the exclusive capacity to accumulate intellectual capital, appears in this dimension as central to the capacity to innovate and strategic for the competitiveness of nations. The two following categories of analysis of the IUS address indicators directly related with business activities and investments in R&D, confirming the principle of effectivity inherent in the concept of innovation. The T&TCI also includes, among its pillars, indicators related to the business activities that make up the tourist industry, although, as already stated, it is not grouped into a single pillar and does not follow a systemic process as does the IUS.

The IUS classifies the countries studied into four different categories in relation to innovation: leaders, followers, moderate, and modest. This means that not all are equal for the classification. As suggested by the discussion of the regional innovation systems, the European Commission, by means of the IUS, underlines that not all regions or countries have the same conditions to innovate and harness their competences to transform endogenous attributes into vectors of competitiveness. Thus, this study aims to follow a way to know and evaluate the regional conditions that enable innovation in tourism, considered the greatest current and future competitive challenge.

Proposition

A Regional Innovation System in tourism represents a set of endogenous and exogenous competences concentrated in a specific geographic area and that, when combined positively, form an environment that leads to the generation and proposition of new ideas and that supports innovative strategies of their tourist destinations (WEIDENFELD; WILLIAMS; BUTLER, 2010).

As tourism is an important economic sector in the economy, as advocated by the T&TCI, and innovation is the greatest competitive challenge for all sectors, it is necessary to incorporate the criteria of innovation to the determinants of

competitiveness in tourism and observe the conditions of innovation, especially in the context of countries and regions (TRIBE, 1997).

Considering the objectives of this study, the Regional Innovation System in Tourism (Ristur) proposal was thought to be applied on a regional scale of T&T, understanding as region a particular cluster of locations or municipalities that have common elements in their geographical, physical, climatic, historical characteristics and/or another relevant binding factor. Therefore, the indicators' data and calculation formula will be adapted to this scale.

Chart 3 presents the synthesis of the combination between the attributes of each model – of competitiveness and of innovation – and exploratory suggestion of the Regional Innovation System in Tourism (Ristur).

Chart 3 – Synthesis of the comparison between pillars of the constructs

T&TCI	IUS	Ristur
Enabled environment	**Enablers**	**Conditions**
1. Business Environment	1. Human resources	1. Human capital in T&T
2. Safety and security	2. Attractive, open, and excellent R&D system	2. R&D system in T&T
3. Health and hygiene	3. Research funding and support	3. Natural resources
4. Human resources/job market		4. Cultural resources
5. Preparation of ICT		5. Target global environment
T&T policy	**Business activities**	
6. Prioritization of travel and tourism	4. Investments in R&D	**Determinants**
7. International opening	5. Entrepreneurship and cooperation	1. Entrepreneurship and cooperation in T&T
8. Competitiveness in price	6. Intellectual capital	2. Prioritization of travel and tourism
9. Environmental sustainability		3. Competitive differentials
Infrastructure	**Results**	4. Innovative attractions
10. Air transport infrastructure	7. Innovators	**5.** Innovative tourist services
11. Port infrastructure	8. Economic impacts	
12. Tourist services		Transformers
Natural and cultural resources		2. Social prosperity
13. Natural resources		3. Environmental sustainability
14. Cultural resources		4. Economic benefit

Source – Prepared by the author

As proposed by the IUS (UNU-MERIT, 2011), the Ristur also assumes a causal sequence between the variables, expressed in the names of the three different dimensions of analysis, and arranged in such a way as to imply a process of cause and consequence. Which means that innovation in tourism can be stimulated based on regional capacity building to achieve the favorable basic conditions for innovation.

Prospective analysis of competitive conditions and opportunities for innovation in tourist destinations by cross-sectional analysis of information will result in the classification of the regions studied, inspired by the proposed categories, as follows:

Leading Tourist Region (RTL): concentrates strategically the criteria that condition the innovation. Presents the best combination of factors that induce innovation. Leading tourist regions that explore their endogenous competences in a strategic and coordinated manner; they present genuine competitive advantages that, when inspired by the conditions of the economy of experience, can generate value-added innovation opportunities in tourism and sustain competitiveness in the long term;

Follower Tourist Region (RTS): concentrates part of the criteria that condition innovation and presents good combination of factors that induce innovation. Important tourist regions, but that do not occupy leadership position in their segments and do not explore properly/creatively the endogenous resources. May have potential to better explore their competences. They present differential competitive advantage in the tourist service and experience that can inspire important differentials;

Modest Tourist Region (RTM): it does not meet properly the criteria that condition innovation, or because it does not have endogenous resources capable of generating differentials, or because it does not use creativity to turn its resources into attractions. It does not develop competitive strategies based on its competences and the provision presents no significant competitive differentials. It is based on imitation and reproduction, without originality in tourist experience. Timid participation in terms of competitiveness of destinations.

This classification will allow for the systematization of typologies of regions according to the capacity to concentrate the attributes considered fundamental to stimulate the innovation and the ability to transform this capacity into innovative competitive strategy in tourism.

FINAL CONSIDERATIONS AND RESEARCH CONTINUITY

Considering the specific objectives and scope of this work, conclusions are not adequate here, but rather some considerations on its continuity, since this is part of a wider project with ongoing research. However, this exploratory and initial stage of research proved critical in order to understand the evolution of knowledge on the topics of competitiveness and innovation, mainly from the perspective of tourism and management of tourist destinations.

The first part compared the construct that was chosen to define and evaluate innovation in countries with the construct that systematizes and assesses the countries' competitiveness in tourism. This analysis was carried out through

the comparison between the macrodimensions and pillars of the models and demonstrated direct convergence between part of the indicators and indirect or complementary relation between another part of the indicators.

It was observed that the IUS includes in its indicators elements of competitiveness that directly affect tourism, such as training and funding for research, science and technology, entrepreneurship, cooperation, favorable business environment, innovative business, while T&TCI covers elements determining the innovation capacity of these regions, when concerned with the local endogenous resources, the socioenvironmental sustainability, the education for work, professional training and the intersectoral cooperation as important influencers of the competitive capacity for the specific countries and regions.

In addition to the merit of making objective complex concepts such as competitiveness and innovation, these constructs, since they assume form of methodology for evaluation of these phenomena in the context of countries, they also underline the need for permanent monitoring of critical factors related to the competitive performance of sectors and countries, on the one hand, and, on the other hand, that of assessing the capacity for innovation also of countries and regions as one of these critical factors.

The basic premise of the research is that innovation is the main competitive challenge for tourist destinations today and will continue to be in the future. Therefore, the main thesis is that the two topics should be analyzed under the same construct. The comparison conducted in the first step allowed for the systematization of the exploratory proposition of a conceptual model that can represent an innovation system in tourist regions, here named Ristur.

The proposal was structured into three main dimensions: conditions, determinants and transformers. Each dimension contains three to five variables that are defined through a set of indicators, in an attempt to build a structural model to assess the capacity to innovate in tourism, and classify these regions into a typology with three basic categories. The next and important step of the research will focus on validating the conceptual model, to then concentrate efforts in assigning value to the indicators and defining their content objectively.

The Ristur is proposed as a systemic model and suggests a clear cause-and-effect relation between different categories of factors (enablers) that influence the innovation and competitiveness of tourist regions in the long term (outputs). This means that the understanding in this research is that innovation can and should be fostered by improving the indicators, which are conditions and fundamental to initiate a virtuous process for more favorable and "blue" competitive positions. The proposal also seeks to highlight the relevance of the distinction (and gap) between original endogenous resources and attractions set (set resources x core attractions) for strategic decisions, which means that the most important is how resources are employed, rather than keeping resources that are not employed.

Finally, the continuity of the research will focus on testing and improving the model so it constitutes a methodological framework for studies on innovation in tourism addressing the competitiveness of destinations. Its results may also be applied to the planning and management of tourist regions, and to guide the definition of innovative regional strategies, since they can be used to evaluate the conditions and potential for regional innovation, indicate opportunities based on

their own competences, stimulate entrepreneurship, support the development of innovative products and services, and contribute effectively to improve the competitiveness of tourist destinations.

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