
Access from the University of Nottingham repository: 
http://eprints.nottingham.ac.uk/28978/1/604888.pdf

Copyright and reuse:

The Nottingham ePrints service makes this work by researchers of the University of Nottingham available open access under the following conditions.

This article is made available under the University of Nottingham End User licence and may be reused according to the conditions of the licence. For more details see:
http://eprints.nottingham.ac.uk/end_user_agreement.pdf

For more information, please contact eprints@nottingham.ac.uk
THE COMPETITIVENESS OF BRAZILIAN TOURIST DESTINATIONS

by

Luiz Gustavo Medeiros Barbosa

THESIS SUBMITTED TO THE UNIVERSITY OF NOTTINGHAM FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

December 2012
ABSTRACT

This thesis proposes a construct to measure the competitiveness of Brazilian tourist destinations and orient the actions of public and private tourism managers. The model of this study is based on a relevant literature review, a panel with specialists that have expertise in Brazilian tourism and field research. The investigation was carried out in 15 Brazilian tourist cities, representative of the socioeconomic diversity that characterises the heterogeneity of a developing country. The results of the study show the level of competitiveness of these 15 destinations according to the 13 dimensions proposed in the model, identifying the strong and weak points of local tourism. An assessment was carried out in detail that should serve to assist public managers in the strategic planning of these cities now and in the future. As a complementary result, the study may be successfully replicated in other destinations, thus initiating a historical series for monitoring the competitiveness of Brazilian tourist destinations.
ACKNOWLEDGMENTS
(Letter sent in 10/12/12 after the viva)

Prezados Amigos,

Estou no trem voltando de Nottingham com destino a London St Pancras, de onde seguirei para Heathrow para pegar meu vôo de volta para o Brasil. Nos últimos sete anos fiz esse trajeto inúmeras vezes. No início tive a companhia do meu querido amigo Saulo, porém nas últimas vezes, sozinho.

Vejo agora um pouco do filme do meu PhD. Nas primeiras aulas que tivemos, eu e Saulo, tentávamos entender que estória era essa de PhD, como funcionava a Universidade e, de certa forma, impressionados com a estrutura e o exagerado academicismo de Nottingham. Era a certeza de dias difíceis pela frente. A certeza da dificuldade vinha quando chegava à hora do almoço! Saulo olhava para mim com uma cara de desespero e começava a rir. A comida era muito ruim e ficou ainda pior com o passar dos anos.

Confiando na capacidade do Saulo de achar boas opções (baratas) de acomodação para ficarmos durante as viagens, encontramos (Saulo) a casa da Miss King, uma enfermeira que alugava quartos perto na universidade. Eu ficava no terceiro andar e Saulo no segundo. Um único banheiro para a casa toda e um gato (blue) que teimava em me seguir e miar enquanto eu tomava café. Depois o Saulo me indicou a acomodação da universidade para estudantes, um lugar terrível e sem aquecimento no inverno e com banho frio. Por fim, desisti dessas aventuras e passei a ficar em hotéis. Bern, Saulo seguiu o caminho dele na EBAPE e eu, me em Nottingham.

Não sei bem quando surgiu a decisão de fazer a tese sobre o estudo de competitividade mas, com certeza, foi uma decisão acertada. Meu orientador na época (Adam Blake) adorou. Era um tema atual, algumas pesquisas no mundo sobre o assunto e uma real possibilidade de dar uma contribuição. Para mim um assunto que eu dominava, teria um volume de informações incríveis e que a equipe da FGV estava dedicada.

Nesse sentido, hoje vejo que meu PhD tem um pouquinho de cada um de vocês. De todos que ajudaram a construir o modelo (Moises, Joaquim, Tenorio, Saulo, Andre, Joao e, em especial lembro aqui do nosso querido Luiz Antonio); da Cris e da Agnes e equipe (Thais e Vinicius) que coordenaram e evoluíram com o modelo; dos pesquisadores (não vou citar nomes para não ser injusto) que foram para a batalha da pesquisa de campo; da Fabiola e do Erick que fizerem toda a parte administrativa; do Roberto (orientado pelo Joaquim) quem fez a primeira dissertação sobre o estudo; da Fabiola e do Erick que fizerem toda a parte administrativa; do Roberto (orientado pelo Joaquim) quem fez a primeira dissertação sobre o estudo; do Leo quem analisou os dados e; dos amigos do Mtur (Jose Francisco, Airton, Tania e Ana Clevia) e SEBRAE (Dival e Lara) que acreditaram no estudo.

Gostaria de registrar que esse PhD não seria possível sem a ajuda de vocês !!!! Apesar de um título individual foi um belo trabalho em equipe !!!!. Gostaria de fazer um agradecimento especial ao Carlyle. Que nessa reta final foi fundamental. Não deixou o assunto da PhD sair da minha pauta. Me procurava e insistia em falar comigo mesmo que minha cabeça estivesse em "outro planeta". Achou fragilidades no trabalho, textos para fundamentar. Muito obrigado "homem passaro".

Hoje tenho certeza que só se consegue chegar ao final de uma jornada longa como essa com o apoio da Família. Sempre tive o apoio incondicional da Bebet e nesse final do pequeno Luiz Felipe, que falava comigo no Skype todos os dias antes da defesa ( babababababa; bububububuhahahahahahahaha) e com o sorriso de dois dentões me dava a energia necessária para a batalha final.

Enfim, gostaria de agradecer a todos !!!!! Muito Obrigado !!!!!!!!

Por fim gostaria de dedicar o meu título ao meu querido pai, tenho certeza que ele esta muito feliz e orgulhoso. Prometi para ele que concluiria o PhD antes do Luiz Felipe nascer, atrasar um pouco mas cumpri o prometido!

Obrigado a todos ! Luiz
Completing a PhD is truly an endurance, and I would not have been able to complete this journey without the aid and support of countless people over the past years. I must first express my gratitude towards my supervisors Professor Thea Sinclair (in memoriam), Professor Adam Blake, Dr. Isabel Jimmenez, Professor Chris Cooper and Professor Leo Jago. Over the years, I have enjoyed the aid of several colleagues in FGV and in The Brazilian Ministry of Tourism and SEBRAE which have supported me while I completed my PhD.

I'd like to thank the many friends that I have worked with in Fundação Getulio Vargas. I wish to thank Saulo Rocha, in particular: as my great friend, his insights and comments were invaluable over the years, and our trips to Nottingham helped make my time in the PhD program more fun and interesting.

I also thank the board of FGV for the support, with a special mention to Professor Bianor Cavalcanti. His leadership, support and attention, hard have set an example I hope to match some day.

I am deeply and forever thankful to my family, in special my beloved mother, grandparents and my brother for their love, support and encouragement.

I must acknowledge my wife Bebel, without her love, inspiration and friendship, I would not have finished this thesis.

Finally I thank my father Luiz Eugenio (in Memoriam) for the support they provided me through my entire life and in particular for this PhD Program. He is the father that I want to be to my little Luiz Felipe. This PhD title is for him.
List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Destination competitiveness and sustainability</td>
<td>60</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Dwyer and Kim’s conceptual model of destination competitiveness</td>
<td>65</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Composition of the general competitiveness index of travel and tourism</td>
<td>72</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Macro-dimensions and dimensions</td>
<td>93</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Access scheme applied to tourism</td>
<td>100</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Scheme of a hypothetical transportation network</td>
<td>101</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Macro-dimension “tourism”</td>
<td>105</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Macro-dimension “public policies”</td>
<td>119</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Macro-dimension “economy”</td>
<td>137</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Macro-dimension “sustainability”</td>
<td>145</td>
</tr>
<tr>
<td>Figure 11</td>
<td>Macro-dimensions and dimensions</td>
<td>182</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Competitiveness study</td>
<td>187</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Cluster of Cities</td>
<td>201</td>
</tr>
<tr>
<td>Figure 14</td>
<td>General index</td>
<td>205</td>
</tr>
<tr>
<td>Figure 15</td>
<td>General infrastructure</td>
<td>206</td>
</tr>
<tr>
<td>Figure 16</td>
<td>Access</td>
<td>208</td>
</tr>
<tr>
<td>Figure 17</td>
<td>Tourist services and equipment</td>
<td>211</td>
</tr>
<tr>
<td>Figure 18</td>
<td>Tourist attraction results</td>
<td>213</td>
</tr>
<tr>
<td>Figure 19</td>
<td>Marketing results</td>
<td>215</td>
</tr>
<tr>
<td>Figure 20</td>
<td>Public policies</td>
<td>217</td>
</tr>
<tr>
<td>Figure 21</td>
<td>Regional cooperation</td>
<td>219</td>
</tr>
<tr>
<td>Figure 22</td>
<td>Monitoring</td>
<td>221</td>
</tr>
<tr>
<td>Figure 23</td>
<td>Local economy</td>
<td>223</td>
</tr>
<tr>
<td>Figure 24</td>
<td>Business capacity</td>
<td>225</td>
</tr>
<tr>
<td>Figure 25</td>
<td>Social aspects</td>
<td>227</td>
</tr>
<tr>
<td>Figure 26</td>
<td>Environmental aspects</td>
<td>229</td>
</tr>
<tr>
<td>Figure 27</td>
<td>Cultural aspects</td>
<td>231</td>
</tr>
</tbody>
</table>
List of Tables

Table 1: Ranking of destination competitiveness attributes (Crouch, 2007) ......................................................... 61
Table 2: Models analysed in this thesis .................................................................................................................. 77
Table 3: Key variables and indicators .................................................................................................................. 89
Table 4: Panel of specialists 1 ......................................................................................................................... 173
Table 5: Example 2 (multiple answers) ............................................................................................................. 177
Table 6: Example 3 (multiple answers) ............................................................................................................. 178
Table 7: Example 4 ........................................................................................................................................... 179
Table 8: Example 5 ........................................................................................................................................... 179
Table 9: Example 6 ........................................................................................................................................... 180
Table 10: Field test ........................................................................................................................................... 181
Table 11: Data collection cities (sample) .......................................................................................................... 189
Table 12: Strong correlation among the dimensions of competitiveness .......................................................... 197
Table 13: Cronbach’s Alpha with 13 dimensions .............................................................................................. 200
Table 14: Cronbach’s alpha by dimension if deleted – 13 dimensions ............................................................. 200
Table 15: Consolidated results for the 15 tourist destinations ...................................................................... 234
# Table of Contents

CHAPTER 1 ..................................................................................................................... 1
  1.1 RESEARCH CONTEXT ................................................................. 1
  1.2 RELEVANCE AND CONTRIBUTIONS OF THE RESEARCH .... 5
  1.3 THESIS FRAMEWORK ............................................................ 7

CHAPTER 2 ..................................................................................................................... 9
  2.1 INTRODUCTION ............................................................................ 9
  2.2 EVOLUTION OF COMPETITIVENESS IN THE LITERATURE 10
  2.3 APPROACHES TO COMPETITIVENESS ..................................... 13
    2.3.1 Units of Analysis .............................................................. 15
    2.3.2 Criteria for Evaluation ..................................................... 20
    2.3.2.1 Competitiveness based on the notion of performance ..... 21
    2.3.2.2 Competitiveness based on the notion of efficiency ..... 23
    2.3.3 Theoretical Origins ......................................................... 25
      2.3.3.1 Economic focus of competitiveness ......................... 25
      2.3.3.2 Organisational focus of competitiveness .................. 28
      2.3.3.3 Early studies ............................................................. 31
      2.3.3.4 New industrial organisation model ......................... 32
      2.3.3.5 Resource-based view ............................................... 36
      2.3.3.6 Dynamic capabilities ............................................... 40
    2.4 FINAL REMARKS .................................................................. 44

CHAPTER 3 ................................................................................................................... 47
  3.1 INTRODUCTION ............................................................................ 47
  3.2 DESTINATION – DEFINITIONS AND MANAGEMENT ..... 49
  3.3 APPROACHES TO DESTINATION COMPETITIVENESS .......... 54
    3.3.1 The Crouch and Ritchie Model ....................................... 57
    3.3.2 Dwyer and colleagues ..................................................... 62
    3.3.3 Gooroochum and Sugiyarto ............................................. 67
    3.3.4 Tourism Competitiveness Index – WEF (2007, 2008, 2009) . 69

CHAPTER 4 ..................................................................................................... 82
  4.1 INTRODUCTION ............................................................................ 82
  4.2 A NEW MODEL FOR THE MEASUREMENT OF DESTINATION COMPETITIVENESS .................................................................................................................. 85
    4.2.1 Macro-dimension “Infrastructure” ...................................... 93
    4.2.1.1 General infrastructure ................................................ 94
    4.2.1.2 Access ........................................................................ 98
    4.2.2 Macro-dimension “Tourism” ............................................. 104
      4.2.2.1 Tourist equipment and services ................................ 105
      4.2.2.2 Tourist products and attractions ............................. 109
      4.2.2.3 Marketing and promotion ........................................ 114
    4.2.3 Macro-dimension “Public Policies” .................................. 119
      4.2.3.1 Public policies ......................................................... 120
      4.2.3.2 Regional Cooperation .............................................. 124
      4.2.3.3 Monitoring .............................................................. 131
CHAPTER I

1. INTRODUCTION

1.1 RESEARCH CONTEXT

The expansion of tourist activities is a worldwide phenomenon, which significantly influences income generation and employment. It represents 5% of the world’s Gross Domestic Product (GDP) and about 7% of the total number of jobs on the planet (direct and indirect), according to the United Nations World Tourism Organization\(^1\). As a category of exportation, tourism occupies fourth place, after fuels, chemical and automotive products. For many developing countries, it is one of the main sources of foreign exchange income. Therefore, many countries are committed to the development of this activity, causing fierce competition among destinations.

In Brazil, tourism is considered an important option for socioeconomic development and a sector capable of promoting economic growth and enhancing the social, cultural and environmental areas of the region. Therefore, the evaluation of factors that favour or inhibit tourism has strategic importance for the country, which seeks to offer high quality products and create an innovative concept of competitiveness.

Although the phenomenon of competitiveness has been the subject of discussion and academic production in tourism, little has been discussed on the competitiveness of tourist destinations in developing countries and on the use of the concept for the management of tourist destinations.

---

\(^1\) Also called UNWTO or World Tourism Organization herein.
Using the models of competitiveness in the existing literature and analysing carefully the theories that underlie this phenomenon, this thesis proposes a construct to measure the competitiveness of Brazilian tourist destinations and orient the actions of public and private tourism managers.

Researching the competitive environment is a difficult task. Different definitions and scopes of the term can be used, which causes a lack of consensus in the literature on the subject, as mentioned, for example, by Lastres and Cassiolato (1995), Kupfer (1992) and Haguenauer (1989).

Moreover, the trend of measuring the competitiveness of countries with the objective of ranking them has become popular. However, authors such as Krugman (1994) raise concerns about the lack of critical analysis on the question of competitiveness, which may cause misbalances in public management results, such as the overallocation of resources, extreme protectionism and commercial conflicts. According to Krugman (1994), competition in the global market also depends on the efficiency of public institutions, infrastructure, education and the economic and political stability of countries.

It is with this in mind that the public policies of tourism in Brazil should go beyond mere economic aspects and include concomitantly market and social variables. Due to the socioeconomic inequalities of the country and the dynamics of social movements in different regions, its institutional resources and arrangements must be recognised.
In order to boost the strategic development of tourism, governments must appeal to public policy instruments that are capable of increasing the competitiveness of destinations. At the same time, policies should be guiding this process in an articulated manner consistent with the expectations of the global market.

This thesis supports the view that if the phenomenon of competitiveness is used in its various dimensions, it could be considered to be a tool for public and private tourism managers to analyse, assess and plan tourist activities in a sustainable manner as well as monitor the progress of destinations.

OBJECTIVES OF THE RESEARCH

The main objective of this thesis is:

To propose a model to measure the competitiveness of tourist destinations that is applicable to the reality of Brazilian cities and works as a management and assessment tool for tourism managers.

The achievement of the main objective of the thesis will be guided by five secondary objectives:

1. To discuss the different definitions of competitiveness and theories upon which they are based;
2. To define tourist destinations for the purpose of this research;
3. To highlight different approaches to the competitiveness of tourist destinations;
4. To identify the key elements that influence the competitiveness of a destination at the local level;

5. To describe a model to measure the competitiveness of Brazilian destinations and to apply it to different destinations.

DEFINITION

Competitiveness in the tourism sector, which has a complex theoretical construction, requires a clear definition in order to facilitate the construction of this model. Owing to these assumptions and the theoretical-conceptual nature of this thesis, competitiveness is defined as:

... the increasing capacity of generating business in the economic activities related to the tourism sector, in a sustainable manner, providing the tourist with a positive experience.

For the application of this concept, the model was divided into five macro-dimensions, subdivided, in turn, into 13 dimensions. These dimensions were subdivided into 61 variables composed of indicators extracted directly from reality and secondary data.

METHODOLOGY

According to Babbie (1999), the examination of a determined social phenomenon is frequently more successful when using several different methods. In this sense, qualitative and quantitative research is complementary and is used in a combined manner throughout this thesis.
This research is qualitative, as the phenomenon is observed by exploring contradictions and paradoxes. It is also quantitative in order to ensure objectivity, assess the possibility of causal relationships and enable generalising.

A cross-section investigation was conducted in 15 tourist cities in Brazil, since the primary objective of this study is to measure the key dimensions and variables that influence the competitiveness of a tourism destination in a developing country.

The result of the study showed the level of competitiveness of these 15 destinations according to the dimensions proposed in the model, identifying the strong and weak points of local tourism. An assessment was obtained in detail that should serve to assist public managers in the strategic planning of these cities now and in the future.

1.2 RELEVANCE AND CONTRIBUTIONS OF THE RESEARCH

This thesis seeks to fill the theoretical gap demonstrated by the bibliographical research on tourism competitiveness. It proposes a model for the measurement of competitiveness in the Brazilian case and serves as an instrument to assist in the management of tourist destinations in general. As academic contributions to the literature on the subject, the following may be cited:

(I) The definition of a model, whose epistemology explains the phenomenon of competitiveness in tourism (cause/consequence) and defines the phenomenon. This choice allows us to assess and monitor the area being studied.
(II) The definition of the city as the geographical unit of analysis provides greater detail on the factors that affect the competitiveness of local tourism.

(III) The choice of an ample range of variables increases the power of diagnostic precision and interpretation of local reality.

(IV) Priority is given to the collection of primary data obtained from the destination in preference to the use of secondary data. This combines qualitative and quantitative research, reducing the subjectivity/objectivity dichotomy.

(V) The consideration of the specific details of destinations, whose socioeconomic differences among destinations in Brazil were one of the premises, motivates this work.

In terms of managerial contributions, little work in the literature deals with competitiveness as a form of tourist destination management. This work presents detailed results on the assessment of 15 cities that can guide the actions of public and private managers. Moreover, the results provide for the creation of a historical series for monitoring the evolution of the destination and the impacts caused by tourism, bearing in mind its sustainability.

Finally, it is believed that this study could be replicated in other Brazilian tourist destinations as well as in other cities of countries that are at the same level of development as Brazil, serving as another management tool for the development of local tourism.
1.3 THESIS FRAMEWORK

The introduction (Chapter 1) presented the main issues discussed in the thesis. The present work focuses on the definitions, models and sources of theoretical studies related to competitiveness. At the same time, the underlying challenges to this phenomenon are reflected in creating a tool for the management of tourist destinations in the country.

In Chapter 2, the evolution of the phenomenon of competitiveness in the literature is studied. The different lines of approach developed by authors in relation to competitiveness are presented: the units of analysis, the criteria for evaluation (notions of performance and efficiency) and the theoretical origins (economic focus and organisational focus).

Chapter 3 presents the study of competitiveness as a possible tool for the management of destinations. Definitions of tourist destinations are discussed, as is the complexity of managing them. The role of the public sector as the orchestrator of actions for the development of sustainable tourism in the studied destinations is considered in this chapter.

The approaches to the phenomenon of competitiveness in destinations are debated in Chapter 4. Four of the main models of the measurement of the competitiveness of destinations are presented: Crouch and Ritchie (1999), Dwyer and Kim (2003), Gooroochurn and Sugiyarto (2004, 2005) and World Economic Forum (WEF; 2007, 2009). In this chapter, a comparative analysis of the main characteristics of these models is also carried out.
Chapter 5 describes the methodology used and construction of the model considered in this thesis, so that the central objective of the thesis can be achieved. Accordingly, the epistemology and research strategy adopted are established, explaining the instruments of data collection, describing the method of weighting the variables of the construct and clarifying how the data are analysed. The limitations of the method and types of tests carried out with the model are also clarified: the pilot for refining the instruments of data collection and statistics for the validation of the results.

The research was carried out in 15 tourist destinations and the results are presented in Chapter 6. This includes a descriptive analysis of the results for each of the 13 dimensions of competitiveness of the model, highlighting the strong and weak points responsible for the result. A discussion of these results is also carried out with the theoretical framework in the literature analysed.

In closing, Chapter 7 presents the final considerations of the thesis. Five theoretical contributions to the subject of the competitiveness of tourist destinations as well as two practical contributions for the management of destinations are synthesised. Finally, the limitations of this study and suggestions for future research are established.
CHAPTER II

2 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 INTRODUCTION

This chapter analyses the evolution of the concept of competitiveness in the literature, explaining the reasons for its rising importance in recent decades. Factors such as economic crises, globalisation, technological progress and integration among countries are factors constantly cited to contextualise studies and concerns regarding the phenomenon of competitiveness.

The issue of competitiveness has gained notable importance to academics and managers (practitioners) over the past decade. Despite the growing number of studies of the subject, there is still no consensus in the existing literature on the theme due to the variety of concepts, approaches, methodologies, units of analysis and economic sectors studied.

A review of studies of competitiveness suggests a classification based on three elements:

1. Units of analysis
2. Criteria for evaluation
3. Theoretical origins

The next sections describe the three dimensions of competitiveness regarding units of analysis: country, industry and business. Understanding these approaches facilitates the understanding of the studies of factors that determine competitiveness in these three dimensions.
Following this, competitiveness studies are classified into two groups regarding criteria for evaluation: studies based on performance analysis and studies based on efficiency analysis. Studies based on efficiency use an ex ante concept, which is based on resources and the production capacities of firms, sectors and countries. By contrast, studies based on performance use an ex post concept, i.e. the phenomenon is measured by the use of the results of actions already undertaken.

Another differentiation found in competitiveness studies and addressed in this chapter concerns theoretical origins. In studies with an economic focus, competitiveness is generally treated from a macroeconomic point of view or a mesoeconomic one. In organisational studies, companies' issues are considered and the surveyed field focuses primarily on the area of strategy and strategic management trends.

Finally, in the conclusion, the concern for the need to combine the concepts, models and sources of theoretical studies related to competitiveness, as well as the adaptation of models and studies for specific economic sectors with their characteristics, is debated.

2.2 EVOLUTION OF COMPETITIVENESS IN THE LITERATURE

The ability to compete in the world market is a major concern today in industrial countries. This concern is debated in the mass media as well as in academic research as one of the most important themes in public and political agendas in developed and developing countries (Haque, 1995; Chudnovsky and Porta, 1990).
The debate on international competitiveness has often been emotive and was described by Krugman (1994) as a “dangerous obsession” because it can result in wrong public politics leading to trade wars, protectionism and the waste of public money. Haque (1995) argues that the international debate has centred on two questions: whether a country’s competitiveness has a clear meaning and whether anything can or should be done about it.

Chudnovsky and Porta (1990) also argue that some factors explain how the competitiveness issue has gained increasing importance in recent decades in various countries. In this sense, it is important to consider the oil crises in the 1970s that adversely affected the economic fundamentals of various developed countries within that period. We should also acknowledge the fiscal crises in Latin American countries during the 1980s (Mexico and Brazil, for instance) as well as the role of technological advances and the rise of new significant competitors in important markets, such as electronics from Japan and other nations in eastern Asia.

A direct effect of this context of the crises and difficulties faced by many countries was to question the development model based on the notion of the state of social welfare adopted after the Second World War in developed countries. In the United States and Britain particularly, this context resulted in the emergence of an environment of trade liberalisation in response to the difficulties experienced by those nations. In turn, in the emerging economies of Latin America, the direct effect of economic crises was the gradual dismantling of protectionist devices developed over the previous three decades and the slow
process of opening and integrating the economy into world markets (Lastres & Cassiolato, 1995).

According to Haque (1995), the literature on international competitiveness in the 1970s and 1980s started to devote increasing attention to the issue of productive restructuring and the incorporation of technical advances. This not only aimed at the integration of national economies into foreign markets but also created theoretical support to explain/justify the formation of economic blocs as the best alternative policy towards managing the unpredictability of the international market. Studies that addressed integration among countries and the creation of predictors of international competitiveness were guided by the broadening of the base of internationally traded products and the consequent volume of exports.

According to Olsen et al. (2008), the globalisation phenomenon raised the importance of the construction of a framework for analysing a country’s competitive position in the international market rather than simply focusing on measuring internal productivity. The authors argue that the marketplace is global and that even the smallest of organisations competes at an international level.

In general, the economic performances of countries are determined by the performances of individual firms in the marketplace. Therefore, human capital, the technological skill of the labour force, managerial practices and government policies are key issues that influence a firm’s ability to compete.
(Haque, 1995; Leonard-Barton, 1995; Figueiredo, 2001), and consequently the competitiveness of the country.

Olsen et al. (2008) argue that the capability of firms to survive and to have a competitive advantage in global markets also depends on the efficiency of their nation’s public institutions, excellence of the educational, health and communication infrastructure and the nation’s political and economic stability.

Therefore, globalisation and the various processes of trade liberalisation undertaken during the 1980s and 1990s are interconnected elements that help explain the need to understand the phenomenon of competitiveness. Although opening national economies was a response to the difficulties experienced in the economies of countries, it brought about underlying challenges, such as the new hypercompetitive global environment, which made a hostile market disputed by countries and companies.

2.3 APPROACHES TO COMPETITIVENESS

The competitiveness phenomenon does not have a single definition in the literature (Lastres & Cassiolato, 1995; Kupfer, 1992; Haguenauer, 1989). Many studies of the issue use various definitions, methodological approaches and assessment methods.

In the business context, a review of the theoretical models of business competitiveness shows the significance of two key aspects: internal factors connected to the actual firm and external factors related to the structure of the
industry in which the firm operates as well as the economy of the country as a whole (Campos-Soria et al., 2004).

Guimarães (1997) points out that the notion of competitiveness for businesses has been approached in several ways, from the larger volume of sales of similar products, through product differentiation, to the issue of profitability. Despite the diversity of foundations to conceptualise international competitiveness, it is not controversial in two respects. The first is its approach to traditional comparative advantages at the levels of productivity as a cause of trade instead of relative factor endowments. The second is the intentionality present in all studies of competitiveness, which evokes the achievement of the benefits of international trade for the country, company or industry, through the productivity that would be the closest element to integrate technical progress and the theories of international trade.

Furthermore, according to Chudnovsky and Porta (1990), some authors state that a nation's competitiveness goes beyond principles based only on international trade or on the defence of the domestic market, incorporating into the theme notions of economic well-being and improvements in a population's quality of life (Fagerberg, 1988; Fajnzylber, 1988; Jones & Teece, 1988).

Thus, according to Crouch and Ritchie (1999), owing to the complexity of the phenomenon and its magnitude, a generally accepted concept of competitiveness does not exist. The authors quote Spence and Hazard (1988:17) as the best synthesis on this topic:
"The problem of international competitiveness has been defined in highly diverse ways. These definitions (and the proposed solutions to the problem) are partially inconsistent, and thoroughly confusing to most academics, politicians, policy-makers, and business managers. There is good reason for this confusion. The collection of problems alluded to as "competitiveness" is genuinely complex. Disagreements frequently occur not only at the level of empirical effects and of policies, but also in the very definition of the problem. Well-intentioned and reasonable people find themselves talking at cross purposes; sometimes it almost seems they are addressing different subjects."

However, some points of convergence can be found in studies of competitiveness. The first concerns the units of analysis and factors that determine competitiveness subdivided into three dimensions: country, industry or economic sector and business. The second point of convergence and clustering of studies of the evaluation of competitiveness can be divided into two groups: studies based on performance and studies based on efficiency. The origins of theoretical studies can also be considered to be a unit of convergence of the work on competitiveness. These can be grouped into economic studies of origin and organisational origin. These points of convergence are discussed in the following sections.

2.3.1 Units of Analysis

The term competitiveness in the literature has distinct degrees of approaches. For example, Buckley et al. (1988:25) summarise the levels of analysis of competitiveness into three categories: country, industry and business (product).
Chudnovsky and Porta (1990) also contribute to the understanding of the subject through an extensive survey of the definitions and concepts of competitiveness available in the literature, finding 17 definitions. The authors identify, in terms of the scope of analysis, two kinds of concepts: those related to companies and national economies and those exclusively linked to competitiveness at the country level.

Accordingly, in the context of business, the concept can mean the ability to sell what is produced (Mathis et al., 1988) or how a firm is able to emerge victorious in its clash with rivals in the market (Michalet, 1981). At the country level, competitiveness might be driven by the ability of a nation to face international competition, i.e. the ability to export its products as well as to protect its domestic market.

Other authors, such as Haguenauer (1989), associate the same concept of competitiveness at two levels (corporate and industrial sectors). According to this author, competitiveness is the ability of a firm (or industry) to produce goods with specific quality standards, demanded by the market, with resources used at levels equal to or lower than those prevailing elsewhere in the world in companies (or industries) for a certain period of time.

In the case of national economies, the concept of competitiveness has undergone significant development. Thus, some authors associate the competitiveness of a nation as well as the principles of international trade or defence of the local market, incorporating the notions of economic well-being and improved quality of life of its population. For example, Fagerberg (1988),
in his model of competitiveness that takes into account aspects such as the
ability to compete in technology, price and training, affirms that a country’s
cOMPETITIVENESS is its ability to achieve the fundamental goals of its economic
policy, such as growth and employment, without incurring difficulties with its
balance of payments.

Fajnzylber (1988), in turn, defines competitiveness as the ability of a country to
maintain or expand its participation in international markets and
simultaneously raise the standard of living of its population, in the medium and
long-term. Contrarily, Jones and Teece (1988) define the phenomenon as the
degree to which an economy in a world of open markets produces goods and
services that meet the requirements of these markets and simultaneously
expands its GDP and GDP per capita at least as fast as its business partners
does.

According to Olsen et al. (2008), the competitiveness of a nation can be
defined as the degree to which it can, under free and fair market conditions,
produce goods and services that meet the standards of international markets
while simultaneously expanding the real income of its citizens, thus improving
their quality of life. This includes the set of institutions, policies and factors
that determine the level of the productivity of a country.

To better assess competitiveness, the focus upon which the analysis is
performed must be clearly defined, as the same parameter can be studied from
different perspectives.
Santos (2006) states that studies of competitiveness recognise the existence of three factors: i) systemic: related to the productive, social, cultural, legal, institutional and economic structures of the country and its place in the world scenario; ii) structural: associated with the specific characteristics of certain trades, such as technology, market size and degree of competition; and iii) business: related to the characteristics and features of each company or business unit, such as managerial capacity, financial structure and market positioning.

According to Coutinho and Ferraz (1994), the systemic approach of competitiveness addresses the macroeconomic factors that allow commercial and political interaction between countries and that also result from the factors outside the scope of businesses and industrial structures of which they are part, such as macroeconomic policy, infrastructure, the political-institutional system and the socioeconomic characteristics of national markets. Fagerberg et al. (2007) support that for the long-term, the role of technology, specifically innovation, has a positive impact on the competitiveness of a country. All these are specific to each national context and should be explicitly considered in public or private policies that induce competitiveness.

Regarding the structural sphere, Santos (2006) argues that it should be analysed according to branches of activities and their specificities. Lall (2001) argues that most analyses use a broad definition of competitiveness and focus on structural factors that affect economic performance in the long-term such as productivity, innovation and skills.
From a business standpoint, Vasconcelos and Cyrino (2000) consider that competitiveness should be analysed in two ways: (i) competitiveness as coming from the environment outside the organisation, derived from the structure of the industry's business, competition and market positioning and (ii) competitiveness as a source of internal factors to firms. The approach proposed by these authors clearly states that the competitiveness of enterprises is closely linked to the structural environment they have (internal) and that in which they are inserted (external).

According to Olsen et al. (2008), despite the importance of a positive environment for the foreign employer, it is still necessary to create valuable goods and services with a commensurately high level of productivity at the micro level. Therefore, the micro- and macroeconomic characteristics of an economy jointly determine its level of productivity and competitiveness.

Dwyer and Kim (2003) emphasise that at the company level, any organisation must provide products and services for which customers are willing to pay. In the long run, in a free enterprise system competitiveness is measured by the ability of the organisation to stay in business and to project its investments, earn a return on those investments and ensure jobs in the future.

According to Ferraz et al. (1996:3), the definition of competition, although it cannot be limited to the factors mentioned above, is "the company's ability to formulate and implement competitive strategies that enable it to expand or maintain in the long term, a sustainable market position".
For Ferraz et al. (1996), two aspects of understanding competitiveness are identified. In the first case, competitiveness is seen as the performance of a company or product. The main indicator of "competitiveness revealed" is related to the participation of that company or product in the market (market share). While in the second case, competitiveness is linked to efficiency and the measurement of "potential competition" and the fact that one should identify and evaluate strategic options adopted by economic agents considering their managerial, financial, organisational and technological limitations.

Thus, in assessing countries and their characteristics, the systemic form is used, i.e., the system of interaction that the country has, which permits it to interact with other countries is analysed, thereby analysing the interactions of various national systems. When checking the installed capacity, or rather the implementation of the system in each country, a structural focus is used; when the ability of companies to compete is seen, a business focus is used for the analysis.

2.3.2 Criteria for Evaluation

In relation to criteria for evaluation, Haguenauer (1989), for example, summarises the various models that concern competitiveness into two kinds of approaches: (i) those based on performance and (ii) those based on efficiency.

In this way, according to Haguenauer (1989), competitiveness models based on performance notions are developed according to the context of countries or industries associated with an ex post concept, namely the competitiveness of a national economy (or industrial sector) measured by its effects upon foreign trade.
trade. The main advantage of this approach is the simplicity of the construction of its indicators, which are usually based on the performances of local exports. Kupfer (1992), by extending the performance concept to the corporate level, affirms that the phenomenon may be measured based on companies’ market share indicators at a given moment in time.

On the other hand, the competitiveness notion based on efficiency derives from the structural characteristics of countries, industries or organisations. Thus, the competitiveness approach, based on the efficiency premise, is eminently ex ante, namely based on certain production capacities or techniques that companies, industrial sectors or countries have. In this sense, performance in the market is a consequence of competitiveness and not its expression (Haguenauer, 1989).

However, it is important to highlight that one is not better than the other and that they can be used simultaneously. The performance indicator could be a confirmation, or made into a fine-tuning, of the efficiency one.

2.3.2.1 Competitiveness based on the notion of performance

In its most basic form, the concept of competitiveness based upon the notion of performance is, to a large extent, the market performance (national or international) achieved by a company, industry or country, namely the total domestic or foreign sales of a product (Lastres & Cassiolato, 1995; Haguenauer, 1989). With this approach, the competitiveness of a nation, or economic sector, is expressed in terms of market participation (market share), exportation volume and/or current account of foreign trade.
Therefore, the definition of competitiveness under the premise of performance is essentially an ex post concept, i.e., the phenomenon is evaluated by means of the results of actions already taken in the past translated into indicators of relative simplicity (Haguenauer, 1989).

The notion of performance competitiveness has two advantages besides this simplicity. First, the concept covers not only production conditions, such as all factors that inhibit or enhance the sales of products or commodities, but also macroeconomic policies such as exchange, trade and monetary agreements (Haguenauer, 1989; Durand & Giorno, 1987).

The second advantage of the performance approach is related to its degree of international use, especially in the context of national economies (Guimarães, 1997), with the use of macroeconomic indicators for the definition of competitiveness at the country level. The widespread use of measurements based on the national exchange rate, in addition to indicators based on the export performance of the economy examined, can be seen.

However, the concept of performance and its various forms of evaluation have received criticism in the literature. First, according to Fajnzylber (1988), it is valid to accept that short-term currency devaluations are able to improve the competitive performances of companies or countries. However, this improvement is limited, as they are unable to increase productivity or incorporate the advances in technology needed for an effective increase in the capacity to compete. Another criticism of this approach is essentially tautological. In other words, it is not possible to establish direct causal
relationships (non-tautological) between competitiveness and other known indicators a posteriori (such as market share, exports, profitability, etc.). This is because the tautology is obvious when one challenges the phenomenon on both sides, namely "if a firm which is competitive or dominant in the market grows, it is equally correct that it will dominate or grow in the market because it is competitive" (Kupfer, 1992:3).

2.3.2.2 Competitiveness based on the notion of efficiency

The notion of competitiveness based on efficiency is derived from the structural characteristics of countries, industries or organisations. Thus, contrary to the concept of performance, the approach to competitiveness, under the premise of efficiency, is mainly ex ante. In other words, it is based on the skills or techniques of production adopted by companies, industries or countries.

In this sense, market performance is a result of competitiveness not its expression (Haguenauer, 1989). Hence, competitive companies dominate the best techniques in terms of productivity; for this reason, such productive domination should represent, ultimately, the competitiveness of an organisation (Kupfer, 1992).

Among the most important aspects regarding competitiveness based on the notion of efficiency are technology (Freeman, 2004) and innovation (Figueiredo, 2003). In this line of thought, according to Fajnzylber (1988), a nation that is able to improve its productivity will be competitive, which is only possible through the incorporation of technical advances in production systems.
Fagerberg et al. (2007) also claim that one of the most important factors for differentiating the performance and growth of an economy is technological competitiveness. Accordingly, various studies such as Nelson and Winter (1982), Rothwell (1977) and Rosenberg (1976), following a neo-Schumpeterian approach, emphasise the role associated with technological capabilities as sources of the performance differences among firms, industries and countries in terms of industrial progress and economic growth.

Therefore, in general, the aspects related to developments in new technologies identified by means of processes of innovation and the ability of companies or countries to develop them are a crucial aspect of competitiveness based on the efficiency approach.

Finally, it should be noted that the efficiency approach also suffers from criticism in the literature. For Kupfer (1992), for example, there are two problems with this approach. First, the notion of efficiency, as a definition of competitiveness, seems to be a symmetrical concept of economies to internal business, such as scale, scope, management, learning, etc. Second, any approach based on efficiency suffers from a tautological aspect (as mentioned in the notion of performance).

Lastres and Cassiolato (1995) further consider the approach of efficiency as restrictive. In this sense, the authors affirm that competitiveness is addressed in a static way, only allowing the examination of indicators to a certain extent in time. Therefore, if examined from a dynamic perspective, the approach of
efficiency (as well as performance) represents the outcomes of the accumulated skills and strategies adopted in the past by companies or countries.

Finally, Buckley et al. (1988) state that efficiency is not a sufficient parameter to determine competitiveness because it also depends on aspects of effectiveness. In other words, competitiveness is not only the question of the best allocation of resources to achieve certain goals, but also determining what those right goals are.

2.3.3 Theoretical Origins

2.3.3.1 Economic focus of competitiveness

In the economics literature, the term competitiveness is usually treated from a macroeconomic and a mesoeconomic perspective, namely from the point of view of the economy as a whole and for specific industries.

Lall (2001) argues that economists use the term "competitiveness" in different ways. From a macroeconomic point of view, a lack of competitiveness can be caused by exchange rates, high interest rates, deficits in international trade transactions and deficits on current account transactions.

Krugman (1994) points out that nations, in contrast to companies, do not compete with each other and that "competitiveness is a meaningless word when applied to national economies". However, Lall (2001) argues that the existence of competition among nations can already be considered and that countries can act together in markets to correct their imperfections.
Within economic science, microeconomic theory aims to study economic units, such as companies. However, under this approach the postulates of perfect competition and the rationality of economic agents create an analytical structure that is distant from the reality of organisations. This explains in part the lack of applications of this type of analysis in classical economics to the business environment and the secondary role it occupies in work on competitiveness and strategy to date (Vasconcelos & Cyrino, 2000).

In fact, according to the principles of microeconomics, the existence of superior returns for a company or industry (i.e. competitive advantage) is recognised as a market anomaly, since the economic system, for the marginalist conception, always tends to balance out, equalling the earnings of agents (Vasconcelos, 2002).

Two other criticisms are made of microeconomic theory. The first concerns its individualistic character in relation to its applicability to the competitive environment of a business. In this approach, the company is never recognised as a social institution that interacts with other companies and agents and thus makes decisions or adopts strategies that do not always seek or ensure the rational use of resources in the short-term. Rather, the organisation is seen as an individual economic agent without decision-making autonomy that responds rationally or passively to changes in the external environment that, in this approach, is reduced to price mechanisms versus quantity (Vasconcelos & Cyrino, 2000:22). The second criticism regards its rational character, which presupposes certainty and balance, resulting in a kind of static economic analysis. Accordingly, decision-making processes are seen as focusing on the
maximisation of utility at a specific time, considering technological processes and the prices of goods and factors as data.

Lall (2001) highlights the large number of economic studies of issues related to the questions of competitiveness: investment, skills, innovation, clusters, information, competition police, regulations and so on. However, these studies, in great part, are not integrated under the generic label of competitiveness.

Fagerberg et al. (2007) argue that a tendency among many economists is to obscure the discussion of competitiveness by focusing on extremely simplified representations of reality that abstract from the very facts that make competitiveness an important issue for policymakers and other stakeholders in a country. A well-known example of this is the idea of “perfect competition”, which presupposes that all agents have access to the same body of knowledge, produce goods of identical quality and sell these in price-clearing markets, so that the only thing left to care about is getting the price right.

For a long time, this led applied economists and analysts to focus on price as the only aspect of competitiveness. In this light, Schumpeter (1943) describes the shortcomings of such simplifications. The true nature of capitalist competition, he argues, is not price competition, as envisaged in traditional textbooks, but competition: “from the new commodity, the new technology, the new source of supply, the new type of organization (...) – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives” (Schumpeter, 1943:84).
Thus, it can be concluded that under the economic approach, the pertinent issues relevant to companies and individuals as autonomous economic agents are not normally considered, while the primary concern is how a country or nation can better compete in global terms and how they can allocate their internal resources more efficiently on a global scale.

2.3.3.2 Organisational focus of competitiveness

Outside the economic focus from the point of view of businesses, competitiveness is studied primarily in the area of strategy and its aspects of strategic management and strategic planning, including the assessment of strategies and competitive advantage. Within the company, some studies also examine the lower degree of competitiveness related to products and services.

Lall (2001) argues that the concept of competitiveness emerged in the literature of business schools, where the foundation for strategic analysis is formed, and that the theme of competitiveness is usually considered under the label of competitive advantage.

According to Rumelt et al. (1994), four fundamental questions define the field of strategy, namely how do companies act, why are companies different, what is the central corporate function in multidivisional organisations and what determines success or failure in international competition?

The notion of competitive advantage is related to all these questions. Competitive advantage can be seen as the objective of the actions of the company, be used to explain the diversity of companies, be seen as the end
goal of corporate functions and can explain success or failure in a competitive environment (Brito & Vasconcelos, 2004).

It is worthwhile highlighting that the majority of research studies of enterprise strategies tend to focus on the approaches that consider the competitive performances of companies and countries solely as a result of the preferences of private and public managers in terms of factors or external forces acting over the companies or countries in question (Porter, 1985).

By contrast, the resource-based view offers its own basis for studying competitive advantage by stressing that internal capabilities or resources are determining factors for the competitive advantage of a company, which can be measured by the generation of economic profit (Barney, 1986a; Dierickx & Cool, 1989).

However, within the analytical model of internal capabilities, studies focus on the business strategies and competitive advantage of companies based on the model of dynamic capabilities (Rumelt, 1984; Teece & Pisano, 1994; Teece et al., 1997; Leonard-Barton, 1992). However, these studies tend to focus on large innovative companies that are technologically advanced and based in industrialised countries. A few authors (Figueiredo, 2001; Tacla & Figueiredo, 2003) are starting to dedicate their studies to companies based in developing countries, but little or nothing has yet been done to combine the variables of developing countries and the services sector.

Therefore, if one takes into consideration the difficulty in measuring and defining competitiveness, the evidence suggests that there is heterogeneity in
terms of performance levels between, for instance, competitor companies (Rumelt, 1991; McGahan & Porter, 1985). The attempts to search for explanatory models concerning these differences in various levels (countries, sectors, companies and even products) have generated, in recent decades, vast academic production that is likely to bring closer together the fields of corporate strategy and the theory of organisations (Vasconcelos & Cyrino, 2000). The purpose of this is to explain how, at a given moment in time, organisations or industries can prepare strategies that allow them to obtain high yields and competitive advantages (Cockburn et al., 2000).

In this sense, Vasconcelos and Cyrino (2000) and Vasconcelos (2002) develop a view on strategy theories that emphasises the notions of performance and competitive advantage. According to the authors, the strategy approaches can be classified into two fundamental dimensions: (i) based on the origin of advantages (external versus internal) and (ii) based on the premises concerning competition (static view versus dynamic view).

Thus, in the first dimension, competitiveness may derive from the organisation's external environment, namely as an attribute of positioning due to industry structure, competition or market dynamics. One example of this approach is Porter's positioning schools. In an opposite plane of the same dimension, competitiveness may be based on an organisation's internal characteristics. This is an intrinsic characteristic of companies.

In the second dimension, approaches based on competitiveness are explained in detail. Thus, the authors make a distinction between the theories founded on a
structural and eminently static view of competition, which consider elements of economic balance (such as approaches based on resources), and the streams founded on dynamic and changeable elements of competitiveness, which emphasise phenomena such as innovation, discontinuity and imbalance (e.g. dynamic capability theories).

The following sections summarise the main lines of thought on competitiveness and competitive advantage. The first section is divided into four parts, namely early studies, the new industrial organisation model, resource-based view and dynamic capabilities.

2.3.3.3 Early studies

According to Brito and Vasconcelos (2004), one of the first references to the expression competitive advantage in the literature of strategy can be found in Ansoff (1965:188–194) where it was defined as the advantage of perceiving, in a proactive way, market trends ahead of competitors and using this anticipation to adjust the offer. There are similarities between this conception of competitive advantage as an anticipation of opportunities and the way it is defined today, although it represents an approach that is much closer to what we now call first-mover advantages.

A point to be highlighted in these first studies is the absence of subjects such as "conquest" and the "maintenance" of competitive advantage in the more classical texts of business strategy, which is the opposite of that which occurs with great frequency in contemporary texts. By the end of the 1970s, the subject "competition" began to appear in the texts of authors on business
practice, who at that time led teaching on business strategy or policy. During the same period, US companies sensed their vulnerability to growing competition from foreign industries, especially from Japan, which competed on different bases and with great success in many areas. The result of this increased competition was the heightened concern of the North American industry with a competitive focus, to a much larger degree than had been the case previously (Brito & Vasconcelos, 2004).

In the late 1970s and early 1980s, the topic of competitive advantage began to occupy a central role in the field of strategy. Planning and leadership became the mechanisms by which to attain it. The process of strategic management became the management of competitive advantage, i.e. the process of creating, developing and maintaining competitive advantage.

2.3.3.4 New industrial organisation model

The formal strategic planning observed in the early studies of strategy and competitive advantage assumed a more analytical and circumstantial form from the 1980s onwards through the new industrial organisation model. This line of thought emerged in studies of industrial competitiveness.

One of the most widespread conceptual models for analysing competitive advantage is the new industrial organisation model. According to this model, a company's economic performance is the direct result of its competitive behaviour in terms of fixing prices and costs, which depends on the structure of the industry in which it participates (Bain, 1959).
It is worth pointing out that the works of Mason and Bain aimed at explaining and analysing the profitability of oligopolies with the objective of implementing anti-trust policies. In the opinions of these two researchers, the power of monopolies and oligopolies represented a threat to society and its economic balance (Vasconcelos & Cyrino, 2000).

In this light, the studies developed by Porter (1991) use the basic model of Mason and Bain to formulate company strategies, using the power of monopolies to the advantage of the companies, without a perspective of governmental regulation. Influenced by the simplified notion of the “precise” firm inspired by neoclassical models, researchers of the industrial economy tend to ignore the organisational aspects of business strategy.

The initial analysis of Porter (1991) on competitive advantage stresses some characteristic elements of the new industrial organisation. First, Porter shares the same unit of analysis, i.e. the industry rather than the individual company: “The basic unit of analysis in a theory of strategy must ultimately be a strategically distinct business or industry” (Porter, 1991:99). Second, the logic of industrial organisation models is clear about the origins and causal aspect of the model, beginning with the structure of the industry, which determines the behaviour of economic agents, which in turn determines firm performance. Although other elements are occasionally considered, the positioning of the firm within the industrial structure is, according to Porter (1996), the main determinant of its success or failure in the competitive scenario.
Porter (1996) highlights that a company's strategic position is exclusive in the market. Companies acquire the desired advantages by being different from rivals. Using this principle, Porter analyses the market and produces elements and aspects that influence the development of strategies based on positioning. The author identifies five forces within an organisation's environment: 1) threat of newcomers; 2) bargaining power of suppliers; 3) bargaining power of customers; 4) threat of replacement products; and 5) intensity of the rivalry among competitors. The author also presents a model with three general strategies: leadership in costs, differentiation and focus.

Ghemawat (1986) proposes that the structural sources of competitive advantage can be found in factors linked to product innovation, production processes or the marketing capacities of companies. Ghemawat (1991) details these generic categories in other more specific ones. Competitive advantage can arise from: 1) benefits of size (scale economies, scope or learning curves); 2) advantages of privileged access to resources (know-how, raw materials, markets); and 3) exercising options that ensure strategic flexibility.

Thus, this approach for competitive advantage proposes a systematic analysis based upon the company's competitive strengths and offers a comparative study between sectors of the same industry in several countries. This model also states that the technological activities of a company must be assessed within the context of competitive rivalry, seeking - through innovation - a differential. It is important to highlight that this approach also has the advantage of acknowledging that innovation can change competitive conditions.
According to Mintzberg et al. (1998), one of the limitations of this approach is the fact that its analysis unit is solely the industry, not the company, and the notion that strategy precedes structure. It also disregards the internal environment and its relevance to the strategic process, ignoring the role of intra-company resources (internal innovative capabilities). In this line of thought, strategies are defined by employing analytical techniques, making them static, and as such they may not be ready to respond quickly to sudden environmental changes. The authors of this school only consider external barriers to be decisive to conquering the market, ignoring fundamental internal elements such as the process of capabilities accumulation within companies.

However, according to Vasconcelos and Cyrino (2000), Porter expresses the first and probably the most influential paradigm in the field of business strategy, which explains the widespread dissemination of his ideas over the past 25 years. Porter offers the promise of an explanation founded on a theoretical structure, which is consistent and empirically verifiable, capable of foreseeing the behaviour of companies in many actual cases.

Nevertheless, some critical aspects are to be noted. Intra-organisational processes play a secondary role in studies of an industrial organisation. With the industry being the unit of analysis, the company is only viewed as a set of organised activities. Further, differences between companies are reduced to differences in size and positioning, without further consideration of what occurs inside the organisation’s boundaries.
The exogenous and determining characteristics of these external forces as regards the internal dynamics of the firm transform the strategy into a continuous force of ex post facto adaptation, a series of successive adaptations to uncontrollable external forces.

2.3.3.5 Resource-based view

In 1959, the idea of considering the organisation as a broad group of resources emerged (Wernerfelt, 1984; Penrose, 1959). The focus of the resource-based view is on a strategy based upon a set of intra-organisational resources that can generate and sustain competitive advantage, guaranteeing profitability for extended periods. For Wernerfelt (1984), the resources of a company can be tangible or intangible, such as production capacity, leadership in costs, brands, technology, technological know-how, individuals with specialised knowledge, financial resources, commercial contacts and competency in processes, among others. According to Teece et al. (1997), a useful way of identifying the main resources of a company is through an analysis of its strengths and weaknesses. This sort of analysis is widely employed by market-following companies, as they seek to identify the determining resources within that market in order to adapt them to their corporate realities.

The central proposition of this school of thought, which is known as the theory of resources, is that the source of competitive advantage is primarily found in the resources and capabilities developed by companies and only secondarily in the structure of the industries in which they are situated.
Thus, companies are considered to be units of capabilities and capacities (Prahalad & Hamel, 1990). These resources and capacities are viewed as rare elements, difficult and costly to imitate and replace within the framework of a particular organisation (Barney, 1991, 1997). The idea of resources includes not only physical and financial resources but also intangible resources (Hall, 1992).

The recent origin of the theory of resources is usually associated with the work of Wernerfelt (1984). However, several older theoretical contributions paved the way to constituting the theory of resources (Penrose, 1959), which emphasises the expansion processes of companies and is thus characterised by both the external and the internal opportunities of the company’s set of resources. Penrose (1959) also emphasises the limitations and possibilities of internal resources for the expansion of companies.

The notion of competitive advantage was found in Barney (1986b), in which he approached the issue of organisational culture and its relationship with greater financial performance. In order for culture to contribute to firm performance, it would be necessary for it to be capable of creating economic value and be difficult to imitate. Under these conditions, culture was defined as a component of a company’s competitive advantage.

Barney (1986a) suggests that firms with sustained superior financial performance are typically characterised by a strong set of core managerial values that define the way they conduct business. It is these core values, defined as how firms treat employees, customers, suppliers and others, that
promote innovation and flexibility in firms, and jointly with managerial controls, they are thought to lead to sustained superior financial performance. He argues that organisational culture is a complex set of values, beliefs, assumptions and symbols that define the way in which a firm conducts its business. In this sense, culture has an enveloping effect on a firm because the firm’s culture not only defines the relevant employees, customers, suppliers and competitors, but also defines how the firm will interact with these key stakeholders.

Using the same line of reasoning, Barney (1991) defines the central argument of the theory of resources in terms of competitive advantage: “It is said that a company has a competitive advantage when it is implementing a strategy of creating value which is not being simultaneously implemented by its competitors or potential competitors, which are incapable of repeating the benefits of this strategy” (p. 102).

The idea that qualitative differences in firms can be attributed to specific resources also represents a break from the theories that focus on the structure of the industry, which attribute the difference between firms to external factors, such as their positioning within the industry.

Two important consequences are derived from this hypothesis. First, to justify performance differences, resources must be capable of generating products or services that can be commercialised (Collis, 1991). It is not sufficient for firms to have different resources. In reality, what differentiates these resources is their capacity to generate value for customers (Hamel, 1995) or their capacity
to allow for the implementation of differentiated strategies (Barney, 1997). Second, this reasoning leads to a fundamental change in the view about the nature of competition, which instead of being competition between products, becomes competition between resources and capabilities (Sanchez & Heene, 1996; Hamel, 1994).

Starting from these basic hypotheses, studies of the theory of resources explore some common themes. Competitive advantage assumes that the endowment of the resources of firms is heterogeneous. As a result of this heterogeneity of resources, firms differ in economic performance, some having low profitability and others having exceptionally high profitability compared with the market average.

The control by some firms of resources capable of generating higher performance assumes that the offer of these resources is limited. The scarcity of these resources is either due to structural reasons (physical, natural, legal or time limits) or due to reasons relating to the behaviour of firms (their capacity to develop unique resources, difficulty in imitating, undifferentiated raw materials available in the market).

This approach helps explain how companies that copy another’s products identify the resources and copy them if they are interesting. However, the excessive concern of this approach with the accumulation of resources, or with the establishment of actual resource “inventories”, encourages agreement with Barney (1986a), who classifies it as a static approach. As such, focus is given to the next approach, which adds another, more dynamic, dimension.
2.3.3.6 Dynamic capabilities

In another phase, a group of contributions can be found that describes the ideas in the theories of market processes and of resources, thereby formulating a theory for forming organisational capabilities in environments of high complexity and constant change.

First, this theoretical synthesis stresses the aspects of co-evolution between increasingly complex competing environments and the capacities and resources of firms (Amit & Schoemaker, 1993; Gorman et al., 1996; Teece et al., 1997). Conversely, it explores the organisational processes and mechanisms capable of explaining the accumulation and configuration of the bases of the resources of firms (Dierickx & Cool, 1989; Teece et al., 1997; Sanchez & Heene, 1996).

The capacities and resources foreseen in this type of resource are basically dynamic, and they proceed by a process of continuous renewal: "The term 'dynamic' refers to the capacity to renew capabilities so as to achieve congruence with the changing business environment (...) The term 'capabilities' emphasizes the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organisational skills, resources, and functional capabilities to match the requirements of a changing environment" (Teece et al., 1997:515).

The dependence on static capacities and resources can generate risks for firms, such as the problems arising from super-specialisation (Miller, 1992) and rigidity (core rigidities) in their capabilities and resources (Leonard-Barton, 1992, 1995).
In studies of the theory of resources, resources and capacities are handled as stock variables, as more or less fixed data. In the dynamic capabilities approach, more important than the current stock of resources is the capacity to accumulate and combine new resources in new configurations capable of generating additional sources of revenue (Figueiredo, 1999).

Thus, the current position of resources is the result of the actions and decisions (deliberate or accidental) taken by members of the firm while carrying out their daily tasks and routines. This is why in order to be able to understand the accumulation of resources, it is necessary to understand organisational routines and processes.

The central point of this analysis is precisely the set of administrative processes (routines, activities, cultures and priorities) that influence the production of tangible and intangible assets in firms. The processes referred to here are "the way things are done in the firm or what might be referred to as its routines, or patterns, of current practice and learning" (Teece et al., 1997:518).

These administrative and organisational processes fulfil three basic functions:

a) A function of coordination/integration (static concept): aiming to coordinate the internal and external uses of the firm’s resources.

b) A function of learning (dynamic concept): focusing on the processes by which the repetition of experimentation allows the most effective use of resources.
c) A function of reconfiguration (transformational concept): dedicated to the mechanisms of anticipating the need for new capabilities and to the methods of the reconfiguration of resources, which will allow for the continuity of superior performance.

In this line of thought, the perspective of strategy based upon dynamic capabilities helps us understand that pioneer companies that do not develop their capabilities will, over time, end up losing their competitive advantages. This first-mover advantage must be linked to the development of the corporate capabilities of sustaining market leadership. This approach is defended by authors such as Teece and Pisano (1994), Iansiti (1997) and Leonard-Barton (1995), among others. Its ideas have been expanded upon since the mid-1990s by a group of innovating authors who have studied the competitive strategies of companies that operate in emerging markets, taking as reference the approach of "dynamic capabilities".

From Iansiti (1997), it can be understood that dynamic capabilities correspond to the capacity of an organisation to consistently sustain, adapt and regenerate its knowledge base and develop and retain organisational capabilities that can translate the knowledge base into useful actions.

From Teece and Pisano (1994), the term "dynamic capabilities" emphasises two relevant aspects, which were not the focus of attention in previous strategic approaches. The first aspect, regarding the term "capabilities" (also construed as capacities or skills), emphasises the key role of strategic management, namely appropriately adapting, integrating and internally and externally
repositioning abilities, resources and capabilities to the demands of a new competitive environment. The second, "dynamics", leads to the idea of the uncertainty that arises as environments evolve. The nature of the future competition and of markets is difficult to predict. As such, certain strategic answers are needed in a dynamic manner, as the pace of change is very fast. The answers are never permanent, and demand requires constant renewal.

Regarding the role of dynamic capabilities in corporate strategy, Leonard-Barton (1995) mentions that companies, like individuals, compete based on their ability to create and use knowledge. She highlights the fact that knowledge management is as important as financial management for an organisation. Therefore, the accumulation of knowledge and competent management gain a paramount role in strategies. Not only is the abilities portfolio relevant, but how this portfolio is managed and employed is also important.

The greatest role of strategy based upon dynamic capabilities appears when it is understood that future capabilities depend on the way in which companies evolve and accumulate capabilities throughout their existences. Past capabilities will give origin to future ones. This process of "capabilities generation" occurs along a path that is unique to each organisation. For following companies, the path may be quicker, as these have the pioneer as a reference. For pioneers, the path is vaguer, offers higher risks and demands a series of specific capabilities (Schnaars, 1994).
The vast majority of studies conducted using this line of thought were carried out in large industrial organisations in industrialised countries, while little research has been conducted for developing countries in services-related sectors.

2.4 FINAL REMARKS

The lack of consensus on competitiveness is clear in this literature review. Several authors address the issue according to methodological approaches: units of analysis, evaluation criteria and theoretical frameworks. Nevertheless, competitiveness continues to be debated both in academia and in the mass media.

Economic globalisation and the processes of trade liberalisation undertaken over the past three decades have formed an environment of global competition for countries and companies. However, one must consider that the ability to compete on the world market is not fair when comparing countries at different stages of development. Companies based in developed countries generally benefit from better structural and systemic conditions to compete in international markets. It is in this environment of core countries that scholars produce studies of competitiveness, while a competitive revolution blossoms in emerging countries without due attention to the available literature.

The trend of measuring the competitiveness of nations with the aim of forming rankings has emerged, since being competitive in the global market also depends on the efficiency of public institutions, infrastructure, education and
the political and economic stability of the countries in which they are established.

However, Krugman (1994) warns that the reductionist view and lack of critical analysis on the issue of competitiveness could result in errors of public policy. As a result, there may be misallocations of resources, excessive protectionism and international trade conflicts. Krugman (1994) also points out that nations, in contrast to companies, do not compete with each other and that "competitiveness is a meaningless word when applied to national economies" Alternatively, Lall (2001) argues that the existence of competition among nations can already be considered and countries can act together in markets to correct their imperfections. Further, the concept of competitiveness emerged in the literature of business schools, where the foundation for strategic analysis is formed, while the theme of competitiveness is usually considered under the label of competitive advantage.

One cannot deny that competitiveness has become a major issue in the public and political agendas of countries. According to Lall (2001), in the global market everyone competes at the international level: organisations and countries. The complexity of the competitiveness phenomenon and its various definitions may be conflicting for academics, businesspeople, politicians and managers.

Finally, this chapter summarises the evolution of competitiveness in the literature. The lines of approach developed by authors in relation to competitiveness were presented, namely units of analysis, criteria for
evaluation (notions of performance and efficiency) and theoretical origins (economic focus and organisational focus), thus building the foundation to study competitiveness in a specific economic sector such as tourism.
CHAPTER 3

3 APPROACHES TO TOURIST DESTINATION COMPETITIVENESS

3.1 INTRODUCTION

As seen in the previous chapter, defining and measuring competitiveness is a complex task. This characteristic reflects directly on the various methods and approaches used to prepare competitiveness models.

According to Melian-Gonzalez and Garcia-Falcon (2003), various studies have dealt with the competitiveness of geographic areas using strategic management concepts. The authors argue that the application of prescriptions of strategic management to destinations, even in different units of analysis from the original (i.e. the firm) is feasible because of a number of similarities that exist among them. First, there may exist a series of objectives for the destination, as established by the political authorities in power. Second, they possess the resources to display the features proposed in this theoretical approach. Finally, they are restricted by their specific environments, in which they must settle if they are to survive. Similarly, Kotler (1998) argues that the administration of a country may be compared with that of a business, with both benefiting from the adoption of a strategic management approach.

Studies in the tourism sector also use strategic management concepts to deal with the competitiveness of the destination. One of the factors that justify this
phenomenon, according to Dwyer and Kim (2003), is that the competitiveness of a tourist destination should be compatible and consistent with the international literature of the areas of economics and business.

This chapter analyses various concepts used in the studies of the competitiveness of tourist destinations published in the academic literature. First, the chapter examines the research field of tourism destination. It is important to understand destination within the tourism industry context and the distinctive elements of destination considering the competitiveness phenomenon.

For an analysis of different models for measuring the competitiveness of tourist destinations, four groups of studies were selected: Crouch and Richie (1999), Dwyer and Kim (2003), Gooroochurn and Sugiyarto (2004), and the model prepared by the WEF (2007, 2008, 2009). These groupings were selected because they are currently the most representative and analysed models in academic publications on tourism.

The analysis took into account aspects such as the definition of competitiveness used and its theoretical origin, the geographical unit of analysis, the motivation for the development, the objectives of the model, the determinants of competitiveness (systemic, structural and business), evaluation criteria (performance and/or efficiency), the number and description of variables and the method of data analysis. In the final section, a comparative table of the models studied is presented. This table identifies gaps in the
present models and justifies the creation of a complementary one, which is presented in this thesis.

3.2 DESTINATION – DEFINITIONS AND MANAGEMENT

Framke (2002) notes that the concept and definition of a tourist destination can vary according to the interests of the study. Thus, the definition of a destination may be found in the literature at different levels, with or without geographical boundaries.

According to Buhalis et al. (2000), a destination can be seen as an amalgam of tourism products, offering an integrated experience to consumers. Framke (2002) defines it as a dynamic agglomeration of attractions and services such as culture, events, landscapes and other similar aspects. Cooper et al. (2001) define destination as the facilities and services designed to meet the needs of tourists.

In order to facilitate studies and definitions, destinations are regarded as well-defined geographical areas, such as a country, a state, a city or even an island. However, it is increasingly recognised that a destination can also be a perceptual concept, which can be interpreted subjectively by consumers, depending on their travel itinerary, cultural background, purpose of visit, level of education and experience (Buhalis et al., 2000). Consequently, the definition of the concept of a tourist destination, the objectives of the study and the geographical unit to be analysed become fundamental to any research on the topic.
In the case of studies of the competitiveness of tourist destinations, the geographical units analysed are normally countries, while the concept is closer to the issues concerning the management of destinations in the definition of a dynamic agglomeration as proposed by Framke (2002).

In this light, the development of a tourist destination is also an important issue to research. In regard to central and local governments, the global significance of tourism as a mechanism for economic development has represented an opportunity for investments. Broadly speaking, what is required is the balanced development of the many facilities required to satisfy visitors’ demands.

At the same time, greater emphasis has been given to the issue of sustainability, so that tourism can generate short-, medium and long-term economic benefits. By contrast, Oliveira (2001) emphasises that managing negative impacts is not a simple matter, as tourism is not a precise or well-defined activity, but a series of interdependent activities.

Development implies a process of improvement in the living conditions of the population. According to Dudley (1993), development is not only linked to the improvement of social well-being, but also to change, be it change in the behaviour, aspirations or understanding of the world where it occurs. Thus, development according to Tosun (2001) must take into account the historical, cultural, social, economic and political factors and not be restricted to a mere engineering exercise.

In this sense, sustainable development is recognised as an indispensable method for attaining development objectives without deteriorating the natural,
social and cultural resources. Despite the large number of interpretations of what sustainable development really is, the World Tourism Organization (1993) defines the term as a model of economic development that is prepared by taking into account the following objectives:

- Improving the quality of life of the receiving community.
- Providing the visitor with an experience of high quality.
- Maintaining the environmental, social and cultural qualities for both the community and the visitor.

According to Wanhill (1997), the public policies adopted by a municipality for developing tourism will determine the vectors of growth in the activity and actions of the private sector. However, it is important that governments do not establish goals that may be contradictory. Public managers frequently discuss the quality of tourism without measuring its performance in quantitative terms. As a result, several tactics are commonly highlighted as tourism goals without a specific justification, such as:

- Attraction of the market of tourists with a high level of expenditure as opposed to the continuous expansion of the number of visitors.
- Maximising the number of jobs owing to the increase in the number of tourists as opposed to conserving the environment and the cultural legacy.
- Development of ecological tourism as opposed to mass tourism.
According Haber and Arie (2005b) governments substantially influence economic and non-economic opportunities, which are equally essential to the creation of the conditions that lead to the development of business ventures. This is no less true of state intervention in tourism:

"Whether the touristic development is encouraged or blocked, depends very much on the policy of the government. At minimum, the state must cooperate with touristic development. Furthermore, the state often plays an active role in opening up new areas of mass tourism because either governmental expenditures on infrastructure or resources from international agencies are required for the provision of infrastructure (roads, airports) and often the touristic facilities themselves" (Dogan, 1989:227).

Governments may provide a general economic framework that actively encourages growth and at the same time removes unnecessary restrictions or burdens (Hall, 1996). Of course, state intervention in tourism differs from one destination to another, depending on the economic, political, social, cultural and environmental priorities and constraints.

In addition, it is relevant to study the infrastructure conditions of the territory under investigation. The role played by the public management in deteriorated areas, such as those with a lack of sanitation, must be different from that played by those with basic needs satisfied but suffering from environmental disorders in their suburbs. However, the extent of effort to be dedicated to one area or the other is the key point for public managers in the use of their budgets.
Crouch and Ritchie (1999) point out that tourism development is directly related to the development of a community and if properly managed, tourism may be considered to be an important tool for social betterment. Nonetheless, while society awaits improvements, tourist destinations struggle to manage tourism development effectively.

The essence of successfully managing a tourism destination is the creation of a partnership between the different stakeholders in the tourism activity. Wanhill (1997) emphasises the importance of the participation of stakeholders, whether they are central or local governments, voluntary or non-profit making organisations, the private sector, the host community or visitor representatives.

According to Cooper et al. (2001), the development of tourism will not reach its optimal point if it is left entirely in the hands of either the public sector or the private sector, as, theoretically, the public sector will aim to maximise social benefits, whereas the private sector will focus on maximising profits.

Thus, the management of the different interests of stakeholders is considered to be a challenge for the management of tourism destinations. Furthermore, the varying configurations of destinations complicate the ideal model for their management, while the necessity for the constant adaptation and evolution of existing models is paramount.

Although there is an increasing amount of literature on destination competitiveness (Pearce, 1989), few articles explore the influence of competitiveness models on destination management.
Crouch and Ritchie (1999:142) argue that “a model of destination competitiveness would offer the tourism industry a mechanism for analysing, diagnosing, planning and communicating competitive strategies”. Crouch (1999) further states that strategies for improving destination competitiveness must include decisions about where and how limited resources should be directed. In this light, this means the information that helps identify which attributes are likely to influence competitiveness most effectively.

According to Mazanec et al. (2007), success in tourism destination management is frequently measured by using a variety of indicators including: (1) the number of visitors and expenditure generated; (2) the degree to which the negative effects of seasonality are successfully managed; (3) the efficient use of existing capacities; (4) the extent to which natural and cultural resources are preserved; (5) visitor satisfaction with the tourism product provided; (6) the efficient usage of market communication and advertising and/or (7) the degree to which local residents accept the existing tourism policy.

Therefore, the use of competitiveness studies as a management mechanism for tourism destination should minimally incorporate these variables in order to capture the volume of positive changes the destination has undergone.

### 3.3 Approaches to Destination Competitiveness

According to Mazanec et al. (2007), tourism researchers have observed, over the past decade, a growing number of initiatives that discuss the need for monitoring destination competitiveness and various proposals for defining and measuring the competitiveness of a tourism destination.
Gooroochurn and Sugiyarto (2004) argue that competitiveness is a complex concept encompassing various elements that can be difficult to measure. According to the authors, competitiveness is a multidimensional and relative concept and its measure will vary depending on the choice of variables, base year and base country or region. In this light, to be more competitive, the destination has to be superior in several variables.

In the tourism sector, the difficulty of assessing the competitiveness of destinations has further complications. According to Crouch and Ritchie (1999), this occurs because of differences in the units of analysis and analysts' perspectives on such units. In other words, the public administration handles the economy's competitiveness as a whole, industries or business associations focus their interests on their respective areas of operation and entrepreneurs and executives worry about the competitiveness of their own businesses.

According to Claver-Cortés et al. (2007), despite the fact that the concept of competitiveness seems to be too simple in which there is little disagreement, when one tries to measure it, it becomes clear how difficult it is to define. A significant complication concerns the unit of analysis. For tourism purposes, one main unit of analysis can be considered: destinations.

Therefore, as for companies, in order to succeed in the tourism market, every destination must ensure its general attractiveness and that the totality of the experiences provided to its visitors are similar or superior to those offered by other destinations (Dwyer & Kim, 2003).
In this light, the capacity of a destination to coordinate the economic and social agents that play a part in tourism and to stimulate the capacity for innovation in order to stay one step ahead of other destinations is decisive for the destination’s success in the travel and tourism industry. As a consequence, Gooroochurn and Sugiyarto (2004) support the fact that the competitiveness of tourism destinations has become increasingly important for policymakers as they aim for a larger market share of the travel and tourism industry.

Claver-Cortés et al. (2007) note that a mutual influence exists between the competitiveness of a destination and that of the firms located in it. Kozak and Rimmington (1999) classify tourism destinations under two main headings: primary features including climate, ecology, culture and traditional architecture and secondary features, which are those developments introduced especially for tourism such as hotels, catering, transport and entertainment. Together, these two main features contribute to the overall attractiveness and competitiveness of a tourist destination.

According to Johns and Mattsson (2005), destination competitiveness can be evaluated both quantitatively and qualitatively. The quantitative performance of a destination can be measured by looking at data such as tourist arrivals and tourism incomes (hard data). However, there is also a need to take into account the qualitative aspects of destination competitiveness (soft data), as these drive quantitative performance.

Enright and Newton (2004) note that a destination is competitive if it can attract and satisfy potential tourists and that this competitiveness is determined
by both tourism-specific factors and by a much wider range of factors that influence tourism service providers. They formulate a quantitative model in order to generate competitiveness measures into a broader spectrum and to consider the usefulness of the approach for tourism practitioners and policymakers. The study shows the practical importance of the identification of relevant competitors and understanding tourism attractors and business-related factors in determining tourism destination competitiveness.

The recent literature on tourism presents a series of international experiences and studies concerning competitiveness in the tourism industry, such as Kozak and Rimmington (1999); Crouch and Ritchie (1995, 1999); Ritchie and Crouch (2000); Crouch (2006, 2007, 2008); Dwyer et al. (2000, 2001); Dwyer and Kim (2003); Kim and Dwyer (2003); Forsyth and Dwyer (2010), Gooroochurn and Sugiyarto (2004); Melián-González and García-Falcón (2003); Enright and Newton (2004,); Johns and Mattsson (2005); and D’Hauteserre (2000). Of these authors, four groups were selected as the most representative models, as discussed below.

3.3.1 The Crouch and Ritchie Model

Since the first studies published in 1995, these authors have aimed to answer basic questions related to the factors determining the competitiveness of sustainable tourist destinations, as summarised in the following questions (Crouch & Ritchie, 1995:2):

- What factors play a significant role?
• How much weight does each factor have and how is this weight a function of the destination and its competitive circumstances?

• Are there any significant interaction effects between important factors?

• How does the importance of the various competitiveness factors vary by tourism market segment?

• Which factors are most easily controlled or influenced by destinations and therefore present the greatest opportunities to affect change?

• Which factors provide only fleeting advantages and which truly contribute to a sustainable basis for competition?

The conceptual model takes into account 36 attributes (influential variables) of tourism competitiveness. It is the result of analysis and studies of the determinants of demand for international tourism and public policy planning and the image of tourist destinations. The attributes were then separated into two groups: comparative advantage (endowed resources) and competitive advantage (consisting of aspects of resource deployment). They were also divided into two levels (or competitive environments): micro (or of the tourism system itself) and macro (or global). Finally, the attributes were distributed into five groups of factors, respectively denominated:
1. Core Resources and Attractors\(^2\) – represented by the factors that act in the tourist attraction, including psychographic, cultural and historical variables, market (market ties), mix of activities, special events and superstructure;

2. Supporting Factors and Resources\(^3\) – related to the variables that provide the "foundation" necessary for a strong tourism sector. Including variables related to infrastructure, accessibility, facilitating resources, hospitality, enterprise and political will of the destination and the economic consequences including job creation, taxes and infrastructure development. According to the authors, issues related to the supporting and resources factors will have more attention in developing regions.

3. Destination management (or destination management factors) – the ability of the destination to shape and influence its own degree (strength) of competitiveness, whose variables can be divided into nine: organisation, marketing, quality of service and experience, human resource management, finance and culture capital, visitor management, resource stewardship and crisis management. These factors should help the destination in implementing the policies adopted in the dimensions of Policy, Planning and Development.

\(^2\) Denomination adopted in 1999 and identified only as "Core appeal" in the initial model (Crouch & Ritchie, 1995:3).

\(^3\) Denomination adopted in 1999, which are the group of factors identified in the 1995 model as support factors - supporting factors (ibid).
4. Destination policy, planning and development – these are related to the strategy and policy development of the tourism sector adopted by the destination. Thus, for the authors, the definition of a public policy with clear objectives for sector development as well as monitoring results can ensure the sustainable development of the tourism sector.

5. Qualifying determinants – those that govern the competitive potential of the destination. Including variables related to location, facilities, safety and cost.

Figure 1 shows the structure proposed by the model, which reproduces the model updated by the authors in 2003 (Crouch, 2007:3).

**Figure 1: Destination competitiveness and sustainability**

Source: Crouch and Ritchie (2007)
To determine the weight of each variable, or the relative importance of factors determining the competitiveness of tourist destinations, the authors formed a panel of experts, selected by convenience, consisting of managers of tourist destinations (destination management organisations or DMOs) and academics.

The results obtained (Crouch, 2006, 2007, 2008) were calculated from the selection of $N$ variables that exert a decisive impact on the competitiveness of the tourist destination. The authors then devised a ranking system by classifying the variables according to two attributes: importance for competitiveness and determinants of competitiveness (most influential).

It is important to highlight that six of the 10 attributes that determine the competitiveness of tourism belong to the group “Core Resources and Attractors” factor model, with the exception of only the attributes related to market variables (market ties) not being included among them. A complete comparison of the degree of importance and determinacy of each of the 36 attributes, extracted from the Summary Sheet corresponding to the 2007 study (Crouch, 2007), is presented in Table 1.

Table 1: Ranking of destination competitiveness attributes (Crouch, 2007)
<table>
<thead>
<tr>
<th>Tourism Superstructure</th>
<th>4</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety/ Security</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Cost/ Value</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Accessibility</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Special Events</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Awareness/ Image</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Location</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Hospitality</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Market Ties</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Entertainment</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Quality of Service/ Experience</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Political Will</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Positioning/ Branding</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Enterprise</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Facilitating Resources</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Carrying Capacity</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Marketing</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>Interdependencies</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>Development</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Information/ Research</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Resource Stewardship</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Vision</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>Monitoring and Evaluation</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Audit</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>Organisation</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>Philosophy/ Values</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>Competitive/ Collaborative Analysis</td>
<td>31</td>
<td>25</td>
</tr>
<tr>
<td>Human Resource Development</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Visitor Management</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>Finance and Venture Capital</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>System Definition</td>
<td>35</td>
<td>31</td>
</tr>
<tr>
<td>Crisis Management</td>
<td>36</td>
<td>35</td>
</tr>
</tbody>
</table>

3.3.2 Dwyer and colleagues⁴

The model proposed by Dwyer and Kim (2003) may be considered to be based on the indicators and determinants of competitiveness, using models based on

the competitiveness of nations and businesses, and some of the variables and dimensions already identified in the earlier work by Crouch and Ritchie and their collaborators. These indicators can be used to measure the competitiveness of a destination, and reflect not only objective measures but also subjective ones, as shown by the results of previous research in this area.

Four main objectives are highlighted from this previous study:

i. To develop a model that expresses the competitiveness of tourism destinations through the identification of key factors for the success of its determination;

ii. To determine an appropriate set of indicators to measure the competitiveness of tourism destinations;

iii. To define the advantages and limitations of the model, and

iv. To suggest conceptual and empirical points for future research and the continuation of the study

In constructing the model, the authors sought to associate the concept of destination competitiveness with the lessons learned from previous studies of competitiveness, including the following highlights:

• Price competitiveness
• Specific factors of corporations with reference to the strategic management literature (the competitiveness of a destination is directly related to the competitiveness of the firms present in the destination)

• Cultural, political and historical factors

• Subjective factors such as consumer perception (in the case of the destination, the perception of the tourist in relation to competitiveness)

It is worth noting that this model explicitly recognises the demand conditions as an important determinant of destination competitiveness, as it recognises that it must not be understood solely as a result of public policy, but as a secondary goal to achieve economic prosperity, which would be the major objective regionally or nationally.

Figure 2 illustrates the model (Dwyer & Kim, 2003:178), which is composed of four dimensions that characterise the competitiveness of a destination, namely resources, destination management, situational conditions and demand conditions.
The resource dimension comprises the characteristics of a destination that make it attractive to tourists to visit, which can be subdivided into three types of resources:

i. Inherited or inherent resources (endowed), including natural and historic resources and cultural heritage;

ii. Created resources (created): tourism infrastructure, special events, practice areas for activities that attract tourists (to practise sports - golf courses, tennis courts, ski slopes, etc.) or recreational in general (nightclubs, restaurants, etc.), options for entertainment (theatres, festivals, etc.) and shopping;

Source: Dwyer and Kim, 2003
iii. Support resources (supporting), including activities that support tourism, offered by public or private organisations, to promote specific amenities which are not easily imitated by competing destinations such as: general infrastructure (transport, telecommunications, health, financial, etc.), service quality, ease of access, degree of hospitality and connections to source markets (commercial, historical, cultural, etc.).

The dimension of situational conditions encompasses all factors related to the impact of the external environment on the competitiveness of the destination (cultural, economic, political, governmental, etc.), particularly the location of the destination.

The authors subdivided the dimension destination management into industrial and governmental factors with five types of activities having a potentially important influence on the competitiveness of the destination: marketing management, planning and development, management of the organisation (public governance, coordination of the stakeholders involved, information management, monitoring and evaluation), human resource development and environmental management.

In the dimension demand conditions, the model includes three basic elements of tourism demand: recognition (awareness), perception and preferences. From this model, the authors propose a series of indicators of the competitiveness of tourist destinations. The variables mentioned in previous studies as indicators of the subject were then added to the other indicators resulting from the trade discussions between experts, stakeholders and academics in the field of
tourism. The authors relate these indicators, listing more than 150 variables, grouped into six dimensions of the competitive model developed.

As a limitation of this model, the authors highlight the fact that the indicators of the competitiveness of tourist destinations listed are only the results of discussions with groups of experts. As the choice of destination is ultimately made by the consumer, it would be appropriate to verify the validity of the model extension within this group. Further, the proposed model is intended as a generic model that can serve both countries and regions/smaller destinations. However, the authors suggest that method application problems may arise if the model is applied in small destinations such as towns.

3.3.3 Gooroochurn and Sugiyarto

Gooroochurn and Sugiyarto (2004, 2005) note that different approaches for measuring the competitiveness of tourist destinations can be distinguished in the literature. Destination competitiveness can be analysed using Porter's (1990) national diamond model, which includes five elements: factor conditions, demand conditions, related and supporting industries and strategy, structure and rivalry of the firms located in the destination.

The authors begin with the analysis of quantitative data from nearly 200 countries and propose eight indicators comprising 23 variables:

i. Human tourism index (tourism participation and tourism impact);

ii. Price (hotel price and purchasing power parity);
iii. Infrastructure (road, sanitation facilities and improved drinking water);

iv. Environment (population density, CO2 emissions and ratification of treaties);

v. Technology (internet hosts, telephone main lines, mobile phones and high tech exports);

vi. Human resource (education index);

vii. Openness (visa, tourism openness, trade openness and taxes on international trade);

viii. Social aspects (human development index, newspapers, personal computers and TV sets).

The initial sample consisted of 203 countries, but only 93 were actually analysed and included in the ranking (justified by the authors because of the lack of available data for the 110 countries excluded from the analysis).

The indicators were then grouped into 23 variables indicative of the relative impacts of each indicator on the overall competitiveness of the destination. The weight of each indicator was estimated by mathematical modelling the data using multivariate analysis methods, namely confirmatory factor analysis and cluster analysis, which allowed them to identify a group of countries analysed in four groups.
The results of this study showed that the indicator definitions influence more strongly and directly the competitiveness of the destination. These variables could be regarded as bottlenecks of this increased competitiveness, and deserving of greater attention in tourism planning accordingly. By contrast, indicators such as the degree of development (economic and human) and environmental aspects of tourism, with lower weights, have less impact on the overall competitiveness of the tourism destination.

This model formed the basis for the development of the Global Competitiveness Index used by the World Travel and Tourism Council to monitor the sector’s competitiveness.

3.3.4 Tourism Competitiveness Index – WEF (2007, 2008, 2009)

One of the most popular studies of competitiveness is the Global Competitiveness Report of the WEF, published annually since 1979. The WEF defines competitiveness as “the set of institutions, policies, and factors that determine the level of productivity of a country” (WEF, 2009:3).

The Global Competitiveness Report, which is based on primary and secondary statistical data from a comprehensive survey conducted annually with the executives of the countries included in the sample analysed, presents statistics and indices for various factors that mould the competitiveness of countries. Currently, the report consists of two distinct indices of competitiveness:
i. The Global Competitive Index\textsuperscript{5} takes into account the level of the development of countries and includes the economic, institutional, social and business variables that define the competitive environment of a nation (12 pillars)\textsuperscript{6}

ii. The Business Competitiveness Index, under the responsibility of Porter (1996) based on his model of the “diamond of competitiveness of nations”\textsuperscript{7} and taking into account the microeconomic factors that shape the productivity of firms

These indices are formed from two types of information:

i. Hard data, or secondary data from international public sources, most of which are from reports published the previous year or the most recent data available, and

ii. Soft data, or primary data from a survey of executives conducted annually in countries that comprise the sample analysed by the study, through local partner institutions in each of these countries in order to capture the more subjective aspects or those which are difficult to measure which influence the competitiveness of an economy.

\textsuperscript{5} The Global Competitiveness Index was created in 2004 by the staff of the WEF along with Professor Xavier Sala-i-Martin of Columbia University.

\textsuperscript{6} Institutions, infrastructure, macroeconomic stability, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market sophistication, technological readiness, market size, business sophistication and innovation.

\textsuperscript{7} Representing the attributes determining the degree of national competitiveness, classified into four groups or factors: factor conditions, demand conditions, related and supporting industries and firm strategy, structure and rivalry.
In the 2007 study, a sample of 124 countries was analysed, while in 2008, 131 countries\(^9\) were included. In 2009, a record 134 countries were reached, which represents more than 98% of world GDP (WEF, 2009:67). The survey in 2008 involved more than 12,000 participants worldwide, with the participation of 139 executives in Brazil. In the 2009 edition, 12,297 executives were interviewed, from 134 countries, representing an average of 91 respondents per country (WEF, 2009:67).


Since 2006, the WEF has included in the questionnaire sent to executives, additional questions specific to the tourism sector in order to assess the competitiveness of countries from the point of view of tourism. In March 2007, the first report on the Travel and Tourism Competitiveness Indices of participating countries was published.

This index was developed between September 2005 and October 2006 and was based on studies published over the course of three years (between 2001 and 2004) by the World Travel and Tourism Council. It comprises various indices

---

\(^9\) Including six countries more than the previous year's survey: Libya, Oman, Puerto Rico, Saudi Arabia, Syria and Uzbekistan. In addition, Serbia and Montenegro were included as independent countries, while Angola and Malawi were excluded from the report for lack of data for the field research.

\(^{9}\) In the 2009 edition, four more countries were included: Brunei Darussalam, Côte d'Ivoire, Ghana (previously included in earlier editions of 2003 and 2004) and Malawi (also previously included between 2003 and 2006).
related to the concepts that are critical to the development of the tourism and travel industry (such as price competitiveness, infrastructure, human resources, the environment and technology). The purpose of this index is to measure "the factors and policies that make the development of the tourism and travel sector in different countries attractive" (WEF, 2007:xiii).

In the 2007 study, a sample of 124 countries was analysed based on 13 broad indicators (or "pillars"), grouping 58 variables that were subdivided into three subindices: system of regulation, the business environment and infrastructure, and human, cultural and natural resources (Figure 3).

Figure 3: Composition of the general competitiveness index of travel and tourism

<table>
<thead>
<tr>
<th>Travel &amp; Tourism Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. T&amp;T Regulatory Framework</td>
</tr>
<tr>
<td>1. Policy rules &amp; regulations</td>
</tr>
<tr>
<td>2. Environmental regulation</td>
</tr>
<tr>
<td>3. Safety &amp; security</td>
</tr>
<tr>
<td>4. Health &amp; hygiene</td>
</tr>
<tr>
<td>5. Prioritization of T&amp;T</td>
</tr>
</tbody>
</table>

| B. T&T Business Environment & Infrastructure |
| 6. Air transport infrastructure |
| 7. Ground transport infrastructure |
| 8. Tourism infrastructure |
| 9. ICT infrastructure |
| 10. Price competitiveness |

| C. T&T Human, Cultural & Natural Resources |
| 11. Human capital |
| 12. National tourism perception |
| 13. Natural and cultural resources |

Source: WEF (2007)
In the 2008 study (WEF, 2008), although the same basic structure and overall logic of the model adopted in 2007 was kept, some adjustments and refinements were introduced. This was because, according to the authors, new data became available between the two editions of the study: for example, it can be seen that the number of columns (dimensions) in the 2008 survey increased to 14 pillars, the last pillar of the 2007 edition having been separated. "Natural and cultural resources" was divided into two pillars: one just for "natural resources" and the other specifically for "cultural resources".

Of the 58 variables used in the 2007 edition, 55% were survey-type data. By contrast, in the 2008 survey, there were 72 variables, of which 58% were hard data types.

The pillars were calculated using the arithmetic mean of the corresponding variables, as were the subindices of each pillar. The General Tourism Competitiveness Index proposed by the WEF, however, represents the arithmetic mean of the three subindices.

The results of the two editions of the study were presented in an overall ranking of countries in the sample, in decreasing order with regard to the General Tourism Competitiveness Index. To classify each variable as a competitive advantage or disadvantage, the country’s relative position in the overall ranking of tourism competitiveness was used as a criterion in the sample with relation to the three subgroups of destinations with predefined rules for each.

10 This is also available in individual tables for each of the 58 variables used in the study for future research.
The methodology used for the classification of competitive advantages and disadvantages was as follows:

- First group: the 10 countries with the largest Tourism Competitiveness Index (or Top 10) — any variable of the country with a value above the 10th position in the ranking is considered to be an advantage and any variable below this position, a disadvantage;

- Second group: countries with a Tourism Competitiveness Index between the 11th and 50th positions in the ranking — any variable with a value position above the overall ranking is considered to be an advantage, and conversely, a disadvantage; and

- Third group: the countries below the 50th position in the general ranking — any variable with a value above the 50th position in the general ranking is considered to be an advantage and below this threshold, a disadvantage.

3.4 FINAL REMARKS

In destination management, it has become increasingly complex to administer the various factors that make up a tourism destination. If DMOs can harmonise the interests of the actors present in the destination (communities, public and private organisations), tourism will then constitute an important tool for sustainable development.

Although few studies of competitiveness as a form of tourism destination management have been produced, it is believed that DMOs can use a competitiveness model with a great amount of confidence. However, such a
model would need to take into consideration the variables and data collection instruments that can be customised to that specific area to produce customised data on the volume of changes necessary for the success of the destination.

According to Crouch (2007) and Dwyer and Kim (2003), the applicability of the model to destinations at different stages of development implies that the main factors that contribute to the competitiveness of destinations may the same for both developed and underdeveloped economies. For the same focus, the models used to measure competitiveness are horizontally applied for countries or for local small destinations, which may cause severe distortions.

As a result of such a general application of these models, the importance of the consideration of variables that compose them arises. Crouch (2007) and Dwyer and Kim (2003) point out the need for further study in this area, as variables tend to have relative importance to the particular features of each destination.

The geographical, cultural and socioeconomic characteristics of each country or destination will determine the marketing strategies used to attract different people. However, the models consider the same approach to competitiveness for countries with distinct tourism populations. In this case, the factors of the competitiveness of the destination should match its characteristics and be aligned with its target audience (Crouch, 2007; Dwyer & Kim, 2003).

Dwyer and Kim (2003) also suggest that the integration of objective and subjective attributes of competitiveness is an important issue for future research. The possibility of incorporating qualitative factors with quantitative ones for the construction of a competitiveness index could contribute greatly in
determining the global competitiveness of the destination. Only then would the model be able to provide detailed information that supports investment and other decisions on the allocation of resources in both the public and the private sectors.

The competitiveness measurement model proposed in this thesis is based on the review of the competitiveness of tourism destinations by Crouch (2007) and Dwyer and Kim (2003). These authors suggest the need for future studies to counter the limitations of the models presented in the current competitiveness literature review. The model described in the following chapter, besides being applicable to the reality of Brazilian tourism destinations, could serve to orient other models for emerging countries. Therefore, the identification of the key variables and indicators used in the prevailing models of the competitiveness of tourist destinations may serve as a basis for the model proposed in this thesis.

Table 2 summarises some of the key aspects related to three of the four models discussed in this thesis in order to construct the foundation of the model proposed herein. The main characteristics described in the table are Theoretical reference, Motivation for development, Objectives of the models, Units of Analyses, Research methodology, Data collection, Qualitative data, Quantitative data, Dimensions of the study, Variables, Data analysis, Treatment of missing data, Validation of results, Application of the study, and Country of origin.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General description/ Theoretical reference</strong></td>
<td>Based on the theories of competitive advantage (Porter, 1990), economic growth (Jeffrey Sachs) and business competitiveness (Xavier Sala-i-Martin).</td>
<td>Based on the theories of comparative advantages from Adam Smith and David Ricardo) and competitive advantage (Porter, 1990). Competitiveness of destinations as a result of inherited resources (“destination’s resource endowments” - comparative advantages) and strategic resources (“deploy resources” - competitive advantages) was proposed.</td>
<td>Based on the indicators and determinants of competitiveness, using the models of competitiveness of nations and firms. They seek to integrate the main elements of the perspectives of the focus on national competitiveness and enterprise competitiveness to the principal elements of the studies specifically on the concepts applied to destinations.</td>
<td>Based on a competitiveness monitor with eight themes of tourism competitiveness. Their analyses cover more than 200 countries. The monitor aims to identify weak and strong areas of competitiveness of destinations showing the level of performance of the each country.</td>
</tr>
<tr>
<td><strong>Motivation for development</strong></td>
<td>The model is the result of the adaptation of the methodology used in the Global Competitiveness Report, published annually since 1979 by the WEF. It uses data from the Survey of Opinions with executives carried out annually by the WEF from January to May. As a motivation, the interest of the world media on the subject and the role of the WEF in inducing competitiveness is highlighted.</td>
<td>The model is the result from a long-term academic research program, at La Trobe University – Australia, which began in 1995, and was part of the Cooperative Research Centre in Sustainable Tourism being done by the Australian Government. (15)</td>
<td>Develop a model that expresses the competitiveness of tourism destinations, determine a series of appropriate indicators to measure the competitiveness of tourism destinations and suggest conceptual and empirical points for future research to continue the study. The study was developed as a result of an initiative of the Australian and Korean governments to Study how to improve bilateral tourism flows between the two countries.</td>
<td>The model is based on a methodology for measuring and monitoring tourism competitiveness using a wide range of indicators presented in the competitiveness monitor. The monitor may be used to compare the indicators over time and across countries. The competitive performance as well the weak and the strong points may provide strategic information to policymakers taking accordingly.</td>
</tr>
<tr>
<td><strong>Objectives of the model</strong></td>
<td>The main aim of these reports of the WEF is to measure the competitiveness of the tourism and travel sectors of countries and induce the competitiveness of countries in this economic sector.</td>
<td>Answer questions related to the factors determining the competitiveness of sustainable tourist destinations.</td>
<td>i) Express the competitiveness of tourism destinations through the identification of key factors for the success of its determination and ii) determine an appropriate set of indicators for this construct.</td>
<td>The purpose of the model is to measure and monitor tourism competitiveness through eight indices which compares the level of competitiveness of different countries.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------</td>
<td>----------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Unit of analysis (destination)</strong></td>
<td>Country</td>
<td>Generalised conceptual model applicable to any destination or tourism market.</td>
<td>Country</td>
<td>Country</td>
</tr>
<tr>
<td><strong>Nature of research methodology</strong></td>
<td>Theoretical and empirical, qualitative and quantitative</td>
<td>Model of Competitiveness: Theoretical and qualitative (focus group and in-depth interviews with experts - to define the attributes, and a Specialist Panel - to decide on the determinant attributes); Determinant attributes: Empirical-quantitative (with the ranking of attributes determined using the analytic hierarchy process method and Expert Choice software)</td>
<td>Model of Competitiveness: Theoretical and qualitative. Case Study; empirical qualitative, with data analysed quantitatively</td>
<td>Model of competitiveness: theoretical and empirical quantitative research; indicators are defined from theory research and calculated through aggregation according to themes using weights obtained from confirmatory factor analysis (CFA); cluster analysis is applied to the eight main indices.</td>
</tr>
<tr>
<td><strong>Method of data collection</strong></td>
<td>Comparing secondary data with data from the Executive Opinion Survey of the annual WEF preceding the publication of the report (primary data), Online survey of the specialist group, which identified the relative importance of 36 attributes and five factors of the model, illustrating its viewpoint by analysing the three destinations chosen.</td>
<td>Model of Competitiveness: Theoretical and qualitative (focus group and in-depth interviews with experts - to define the attributes, and a Specialist Panel - to decide on the determinant attributes); Determinant attributes: Empirical-quantitative (with the ranking of attributes determined using the analytic hierarchy process method and Expert Choice software)</td>
<td>Using secondary data from World Bank, World Travel and Tourism Council, United Nations.</td>
<td>Does not use qualitative data.</td>
</tr>
<tr>
<td><strong>Qualitative data</strong></td>
<td>Primary: Survey with the application of semi-structured questionnaires assessed using a seven-point Likert scale with executives participating in the Executive Opinion Survey of the annual WEF.</td>
<td>Primary: Attributes and attribute determinants obtained by a panel of specialists (convenience sample of 83 individuals) (14)</td>
<td>Secondary data was normalised using approach adopted by the United Nations Development Programme (value 0 to 1 point); confirmatory factor analysis was used to attach different weights to</td>
<td></td>
</tr>
<tr>
<td><strong>Quantitative data</strong></td>
<td>Secondary - standardised scale of 0 to 7 points (1). Worldwide comparable data.</td>
<td></td>
<td>Does not use secondary data</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------</td>
<td>----------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>1 General indicator (Travel and Tourism Competitiveness Index or Tourism Competitiveness Index) = arithmetic mean of 13 dimensions (columns) in 2007 and 14 in 2008–2009 (3), grouped into three subindices (A- regulatory system, B- business environment and infrastructure, and C- human, cultural and natural resources). Classification of variables such as competitive “advantage” or “disadvantage” by country (4)</td>
<td>2 levels (or competitive environments) - micro (or the very tourism system) and macro (or global) - and the following variables (attributes) distributed into five main groups (of factors of competitiveness) (13), formed by the 36 attributes, of which 10 of them are considered as determinants and differ from the group of 10 attributes considered most important by the group (16)</td>
<td>5 <strong>Dimensions</strong>: inherited or inherent resources – the endowed, created or constructed resources – the created and supporting resources – the supported, destination management (governmental and industrial factors) (6) situational conditions (7) and demand conditions (recognition - awareness, perceptions and preferences).</td>
<td>the eight main indices carried by AMOS 4.0 software; cluster analysis was applied for 93 countries where all eight main indices could be calculated.</td>
</tr>
<tr>
<td><strong>Variables</strong></td>
<td>2007: 58 variables (32 from survey data, or 55.2%, 26 from hard data, 44.8%), 2008 and 2009: 2007: 71 variables</td>
<td>36 attributes (competitiveness of tourism)</td>
<td>More than 150 variables (literature review and Specialist Group - 8)</td>
<td>Total of 23 variables; all formed from secondary data.</td>
</tr>
<tr>
<td><strong>Method of data analysis</strong></td>
<td>Country ranking for each dimension and pillar</td>
<td>The weighting of attribute determinants was carried out using the analytic hierarchy process method and Expert Choice software.</td>
<td>Ranking of countries for each main theme.</td>
<td></td>
</tr>
<tr>
<td><strong>Treatment of “missing” data</strong></td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td><strong>Validation criterion of the results</strong></td>
<td>Multivariate analysis: analysis of the correlation between the Travel and</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Tourism Competitiveness Index (dependent variable) with two tourism indicators (independent variables): total number of international arrivals in the country and the corresponding revenue (base two years before the date of publication of the report)</td>
<td></td>
<td></td>
<td></td>
<td>Not identified</td>
</tr>
<tr>
<td>Form of advertising of the results</td>
<td>Annual reports, generally published in March</td>
<td>Publication of academic articles in scientific journals and events</td>
<td>Not identified</td>
<td>Publication of academic articles in scientific journals and events.</td>
</tr>
<tr>
<td>Application/case study</td>
<td>2007: sample of 124 countries; 2008: sample of 131 countries; 2009: sample of 134 countries</td>
<td>Not identified</td>
<td>2003: Australia as a tourist destination. Survey with 132 specialists, who evaluated 83 of the indicators of the model using a five-point Likert scale, comparatively to a group of nine reference tourist destinations. (17)</td>
<td>2003: sample of 200 countries</td>
</tr>
<tr>
<td>Influence on public policy</td>
<td>Yes. Dimension specifically for this purpose.</td>
<td>Yes. Dimension specifically for this purpose.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Country of origin</td>
<td>Switzerland</td>
<td>Canada and Australia</td>
<td>Australia</td>
<td>England</td>
</tr>
</tbody>
</table>

Notes:

(1) - Secondary quantitative data standardisation adopted by the WEF: 6 \[
\frac{(country\ score - sample\ minimum)}{(sample\ maximum - sample\ minimum)} + 1
\]

(2) - Price competitiveness, infrastructure (roads, sanitation facilities and drinking water), environmental aspects (population density, CO2 emissions and regulations), technological advancement (Internet access, number of landlines and cell phones, high technology export items), human resources, tourism opening (visa policy, international economic indicators and macroeconomic tourism), social (Human Development Index, access to newspapers, number of TV sets and personal computers) and degree of development of tourism.

(3) - 2007: (1) - Secondary quantitative data standardisation adopted by the WEF: 6 \[
\frac{(country\ score - sample\ minimum)}{(sample\ maximum - sample\ minimum)} + 1
\]
(2) - Price competitiveness, infrastructure (roads, sanitation facilities and drinking water), environmental aspects (population density, CO2 emissions and regulations), technological advancement (Internet access, number of landlines and cell phones, high technology export items), human resources, tourism opening (visa policy, international economic indicators and macroeconomic tourism), social (Human Development Index, access to newspapers, number of TV sets and personal computers) and degree of development of tourism.

(3) - 2007: 1) Tourism Public Policy and Regulation; 2) Environmental regulation; 3) Level of Safety and Security; 4) Health and Hygiene; 5) Prioritisation of tourism by the government; 6) Infrastructure for air transport; 7) Infrastructure for land transport; 8) Tourist infrastructure (including hotel network, car rentals and ATM’s (Visa ®));

(9) IT Infrastructure and Communications; 10) Price competitiveness of the tourism industry; 11) Human Resources (including 11 variables that relate to aspects of education level, employment practices and level of quality of life, expressed by indices of health and life expectancy); 12) Perception of domestic tourism (including openness to tourism, attitude towards the tourists, recommendation for extension of business travel); 13) Natural and cultural resources (including the number of places recognised as UNESCO heritage, CO2 emissions, total environmental protected areas, environmental awareness of entrepreneurship and risk of infection with malaria/yellow fever). 2008-2009: Separation of the last pillar into “Natural Resources” and “Cultural Resources”.

(4) - Subdividing the countries analysed into three groups, which were based on the criterion of identifying the Top 50 (50 highest rates of competitiveness), forming the first group.

(5) - Correlation coefficients: 2007 = 0.77 and 0.84; 2008 = 0.65 and 0.75.

(6) - The Destination Management dimension was subdivided into industrial and governmental factors, five types of activities have a potentially important influence on the competitiveness of the destination: marketing management, planning and development, management of the organisation (public governance, coordination of stakeholders involved, information management, monitoring and evaluation), human resource development and environmental management.

(7) - The situational conditions dimension encompasses all factors related to the impact of the external environment on the competitiveness of the destination (cultural, economic, political, governmental, etc.), and particularly the location of destination.

(8) - Experts in trade, stakeholders and academics in the area of tourism held workshops during the months of April and May 2001 in Korea (Seoul) and Australia (in the cities of Brisbane and Sydney).


(10) - Macro-Dimension (respective dimensions): Infrastructure (Infrastructure generates Access), Tourism (Services and tourist facilities, tourist attractions, Marketing), Public Policy (Public Policy, Regional Cooperation, Monitoring), Economics (Local Economy, Entrepreneurship) and Sustainability (Social aspects, Environmental aspects, cultural aspects).

(11) - According to the criteria defined by the trade specialists group, academics and tourism stakeholders.

(12) - A direct scale of five levels was defined as: 1) from 1–20, 2) from 21–40, from 3) 41–60, from 4) 61–80, and 5) from 81–100), not considering the sample distribution.

(13) - Supporting Factors and Resources; Core Resources and Attractions; Destination Management; Destination Policy, Planning and Development; and Qualifying and Amplifying Determinants.

(14) - The Group of 83 Experts: destination managers and academics in the field of tourism, who responded to an online survey in English (origin: American - 33% of the sample, European - 26% and Australian/New Zealand - 33%).

(15) - The group integrates the STCRC Program (Sustainable Tourism Cooperative Research Centre) established by the Australian Government in 1997, which currently includes 17 universities and 17 companies and institutions in the tourism trade, besides spin-offs resulting from project (URL: www.crtourism.com.au)

(16) - A group of 10 determinant attributes, in descending order of impact on tourism competitiveness: Physiography and Climate, Culture and History; Mix of Activities; Tourism Superstructure; Awareness/Image, Special Events, Entertainment, Infrastructure; Accessibility; Positioning/Branding. While the 10 most important attributes are: Physiography and Climate; Tie Market; Culture and History; Tourism Superstructure; Safety and Security; Cost/Value; Accessibility; Awareness/Image; Location and Infrastructure.

(17) - The reference countries in the Asia-Pacific region were Japan, Hong Kong, Malaysia, Thailand, Taiwan, China, Korea and Indonesia.
CHAPTER 4

4  CORE ELEMENTS FOR DESTINATION COMPETITIVENESS

4.1  INTRODUCTION

This chapter aims to present the construction of a model that brings together the concepts of a tourist destination and models for measuring its competitiveness. The aim is to theoretically justify the choices of several dimensions and variables of competitiveness given the variety and specifications of the Brazilian tourism environment.

The literature review showed that the models analysed are in need of variables that better reflect the more modest reality of destinations located in developing countries in terms of their problems, socioeconomic issues and aspects that serve as indicators of conditions for the development of tourism.

The limited availability of primary databases and systematic research in cities of developing countries is the main reason why the analysed models of competitiveness use secondary data sources or surveys with representatives and/or experts. For this reason, the proposed model also focuses on primary data collection in order to obtain a reliable evaluation of the competitiveness of tourist destinations.
According to Dwyer and Kim (2003), although the frameworks of competitiveness appearing in the wider literature are useful for pointing out the various determinants of the competitiveness of a country or organisation, they do not address special considerations to determine destination competitiveness.

Dwyer and Kim (2003) also suggest that none of these models is entirely satisfactory, as they do not provide a comprehensive analysis of the various issues involving the notion of competitiveness explored in the wider literature. The authors assert that a major problem, underlying all attempts to establish indices of competitiveness, involves the integration of the objective and subjective attributes of competitiveness. An important issue for further research is to explore the possibility of incorporating qualitative factors into the construction of a competitiveness index. No single method can be used to integrate 'hard' and 'soft' factors into a single index. More research needs to be undertaken on how the objective and subjective attributes of competitiveness are to be weighted in order to determine overall destination competitiveness.

Mazanec et al. (2007) summarise the criticisms related to the methodological and operational questions used to measure the competitiveness of tourism destinations according to the unit of analysis, epistemology, the subjective/objective dichotomy, the use of economic theories and models of finance and the cause/consequence dichotomy.

The unit of analysis adopted in most academic and empirical studies is the country, although these models can be applied to other units (region, state, municipality) subject to consistent data. In the articles researched by the
authors, the rationale for the level of data aggregation to the destination seems to have been neglected: sometimes favouring production and supply and at other times favouring behavioural sciences and the decision processes of tourists.

From an epistemological point of view, some models of competitiveness seem to define destination competitiveness, whereas others seek to establish the cause/effect relationship of this phenomenon. This epistemic difference is not apparent in academic debates.

According to the objective/subjective dichotomy, the author questions why models still use only subjective factors in their assessments, while indirect measurements and analysis based on objective business portfolios are systematically ignored. Only recently have financial and economic models started to be incorporated into the constructs of competitiveness.

Finally, the discussion about which indicators should be used to measure competitiveness continues: whether performance indicators (such as market share and relative growth) or those that incorporate the well-being and prosperity of residents. Are the former considered to be determinants of competitiveness or are they seen as a consequence of the high social well-being of residents in the destination?

It is clear, based on the theoretical reference presented (including its gaps and contradictions), that the measurement of competitiveness depends on the variables, evaluation criteria and unit of analysis chosen. According to Dwyer and Kim (2003) and WEF (2001), the main factors that contribute to
competitiveness differ for economies at different levels of development. The authors also suggest the need for additional research in this area.

Thus, there is room for a new model of the competitiveness of tourist destinations in view of the specificity of the Brazilian reality, which is still considered to be a developing country (see the Development Report 2011 by the United Nations Program for Development (UNDP)). In addition, the country has an enormous land area as well as diverse cultural and physical environments, making it perfect for testing a new model of competitiveness. Finally, there is little information about the conditions of destination competitiveness.

4.2 A NEW MODEL FOR THE MEASUREMENT OF DESTINATION COMPETITIVENESS

The theoretical complexity of competitiveness in the tourism sector requires the complete understanding of the phenomenon. The different combinations concerning the concept of competitiveness must be, as much as possible, in line with the object being assessed and consistent with the justifications for the respective incorporation. Therefore, it is possible to define (according to consistency and content) what such a concept represents within the scope of this thesis.

Mazanec et al. (2007) claim that an agreement is likely to be reached on the comprehensive interpretation proposed by Ritchie and Crouch (2003:2), namely what makes a tourism destination truly competitive is its ability to increase tourism expenditure, to increasingly attract visitors while providing
them with satisfying, memorable experiences, and to do so in a profitable way, while enhancing the well-being of destination residents and preserving the natural capital of the destination for future generations.

This explanation contains more than a mere definition. It seems to include hidden cause/effect assumptions. That is, it points to “satisfying, memorable experiences” as an antecedent of an increase in the number of visitors. It further mentions resident well-being as an obvious consequence of profitability (claimed as a condition for competitiveness). Additionally, the criterion of sustainability is required.

As a result of such premises and the theoretical/conceptual reference presented in previous sections, competitiveness is defined as the growing capacity for generating business in the economic activities connected with the tourism sector, in a sustainable way, providing the tourist with a positive experience.

For the purpose of this thesis, a destination is considered to be a defined geographical region that is understood by its visitors as a unique entity, with a political and legislative framework for tourism marketing and planning. This definition enables DMOs to be accountable for planning and marketing the region and having the power and resources to undertake actions towards achieving its strategic objectives.

The development of any economic activity needs a proactive approach and the preparation of strategies that will ensure the achievement of the desired objectives. The establishment of such strategies requires profound understanding of the local reality in terms of its structures, economy,
competitive advantages and fragility for its preparation process. Specifically for the tourism sector, it is recommended that the strategy be built based on a detailed situation analysis that considers all aspects of supply and demand.

The adoption of a broad perspective, which may combine the main subsectors and dimensions that compose the tourist activity, is considered to be most appropriate for the sector's development. Such a perspective must include analyses and scenarios connected with infrastructure, tourist potential, the economy, public policies and sustainability, with the purpose of measuring the current capability of the destination and its potential for development. Issues related to demand, such as trends and market segments, must also be incorporated into planning in order to adjust and establish an area of balance between supply and demand.

It is important to highlight that the subjective factors present in previous models, especially in Dwyer and Kim (2003) and Crouch and Ritchie (1995, 1999), are as important as the objective ones. As noted earlier, Dwyer and Kim (2003) suggest that the integration of objective and subjective attributes of competitiveness is an important issue for future research. The possibility of incorporating qualitative factors to the quantitative ones for the construction of a competitiveness index could contribute greatly in determining the global competitiveness of the destination.

However, subjective variables based on the perceptions and values of service users or the various stakeholders of the destination being analysed were used in a residual way in this proposed model for two reasons: to provide as much
objectivity to the model as possible and to overcome the unavailability of resources (technical and financial) in destinations for conducting opinion polls. Therefore, variables such as the quality of tourist experiences, immigration/customs officers’ attitudes, values and priorities of stakeholders and hospitality of residents towards tourists among others were not part of the competitive factors of the proposed model.

The objective aspects in the assessment of the variables were the main strategy of the research, and subjective factors were used in a residual way and assessed objectively to understand their relevance. The questionnaire provided a detailed explanation and equalisation about the assessment for all situations.

Finally, this model used other variables presented in the studies of competitiveness discussed herein, adapted to the local level (municipalities), as shown in Table 3. One can observe the use of models of competitiveness by Crouch & Ritchie (2007), Dwyer & Kim (2003), Gooroochurn & Sugiyart (2004), the World Economic Forum (2007) for the variables presented in the proposed model: public health; energy and communication; financial facilities; urban development; transport and access; the vicinity of tourist source centres; tourist facilities; professional qualification; attractions; framework to support tourism; planning; promotion and marketing support; tourism research; business infrastructure; level of education; investment barriers; water supply and sanitation; environmental conservation units; cultural production and cultural-historical heritage. The identification of the key variables and indicators used in the prevailing models of the competitiveness of tourist destinations may serve as a basis for the model proposed in this thesis.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model proposed for Brazil and emerging countries</th>
<th>Mod. Crouch and Ritchie</th>
<th>Mod. Dwyer and Kim</th>
<th>Mod. Gooroochurn and Sugiyarto</th>
<th>Mod. WEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Infrastructure</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Medical Care Capacity of Destination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Protection Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Generation</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Infrastructure in Tourist Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Aerial Transport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terrestrial Access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railway and Water Access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport System in Destination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to Big Points of Origin of Tourists</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Services and Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Signalling and Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Information Centres</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arenas for Events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity of Accommodation Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity of Reception Tour Operators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism Qualification Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurant Capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Attractions</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Natural Attractions</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Cultural Attractions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Events</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Technical, Scientific or Artistic events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in Fairs and Events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotional Material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destination Webpage on the Internet (website)</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

89
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model proposed for Brazil and emerging countries</th>
<th>Mod. Crouch and Ritchie</th>
<th>Mod. Dwyer and Kim</th>
<th>Mod. Gooroochurn and Sugiyarto</th>
<th>Mod. WEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Policy</td>
<td>Municipal Structure for Tourism Support</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Degree of Cooperation with State Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Degree of Cooperation with Federal Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Municipal Plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/ Private Sector Cooperation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional Cooperation</td>
<td>Governance</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regional Cooperation Projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regional Planning</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Routes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promotion and Support for Integrated Commercialisation</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Monitoring</td>
<td>Demand Research</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Offer Research</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tourism Statistics System</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Touristic Activities Impact Measurement</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tourism research and studies in the destination</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Economy</td>
<td>Private sector participation in the local economy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communications Infrastructure</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Business Infrastructure</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Propulsion Events or Ventures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Capacity</td>
<td>Qualification for work</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Variables</td>
<td>Model proposed for Brazil and emerging countries</td>
<td>Mod. Crouch and Ritchie</td>
<td>Mod. Dwyer and Kim</td>
<td>Mod. Gooroochurn and Sugiyarto</td>
<td>Mod. WEF</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Presence of National or International Tourism Sector Representatives</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Competition and Obstacles</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Presence of Large Businesses, Branches or Subsidiaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Jobs Generated by Tourism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policies on Dealing With and Prevention of Child and Teenage Sexual Exploitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of Tourist Attractions and Equipment by the Population</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citizenship</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal Environmental Legislation</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potentially Polluting Activities</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Water Distribution Network</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Drainage and Sewage Collection and Treatment</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Waste collection and Disposal</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conservation Units Within Municipal Territories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Productions Associated With Tourism</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical and Cultural Heritage</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal Structure for Cultural support</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight of variables</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

91
For measuring competitiveness, this model proposes adapting and complementing the competitiveness studies of the authors quoted to meet the specific needs of destinations in developing countries. Among the main directions of the model, we can highlight:

(I) The use of variables that are conducive to analyse cities rather than countries, excluding the micro-environment (businesses);

(II) Employment of factors and data sources that identify socioeconomic and structural deficiencies with greater precision in developing or underdeveloped destinations;

(III) The adoption of competitiveness indicators based on the concepts of efficiency (ex ante) instead of performance indicators (ex post); and

(IV) The use of only the most objective indicators possible, avoiding those that purport to investigate values and/or the perceptions of service users.

In the same way, as mentioned by Gooroochurn and Sugiyarto (2004) and WEF (2007), this research divided the elements that affect the competitiveness of a tourist destination into dimensions and variables. This division will facilitate the quantitative treatment proposed by the model. To put the model into effect, five macro-dimensions were defined, with each one subsequently subdivided into 13 dimensions (Figure 4).
The following subsections explain the dimensions and variables that were considered for the purpose of the research as well as the academic literature that supports the value of each element of the competitiveness of a tourist destination.

4.2.1 Macro-dimension “Infrastructure”

Infrastructure provides support for all tourist activities and is linked to the welfare of host communities and visitors. It can be divided into general infrastructure and access.
4.2.1.1 General infrastructure

A region’s capacity to attract people and businesses in a sustainable way is associated, among other factors, with the local infrastructure. In other words, this means with the provision of the structural conditions necessary for people to enjoy the minimum amount of comfort and for businesses to be capable of prospering in a sustainable way. It is assumed that the greater and more diversified the local infrastructure, the greater the capacity to attract people that go to the location with different purposes will be. Such attraction generates the conditions necessary for the creation of businesses that will support the local economy’s expansion (Cooper et al., 2001).

The development of a tourist destination requires the existence of infrastructure capable of serving the resident population and the temporary population that arrives at the location for business or tourism purposes. According to Wanhill (1997), some aspects of infrastructure provision in tourism development must be considered, as follows:

- The geographic concentration of the development provides economies of scale, and so more efficient use; and

- New infrastructure must have multiple purposes, serving communities, both as regards the requirements of tourists and, if possible, acting as a catalyst for other forms of economic development.
Infrastructure constructed solely to meet the requirements of tourists is only justified if the fiscal, economic and social results benefit the local community or if such results generate external effects that are positive for the community and surrounding areas.

The appropriate infrastructure is essential for tourist destinations and it appears mainly in the form of transportation or access (roads, railways, airports, parking, garages), public utility services (basic sanitation, electricity, communications) and other services (health, security and safety), which must be shared among residents and visitors (Khadaroo & Seetanah, 2007).

As an example, one may mention basic sanitation. An efficient sewage and water distribution system is essential for any type of urban space, mainly for tourist destinations, where the population increases on a seasonal basis. In addition, special attention must be paid to the disposal of effluents coming from houses and industries so that a satisfactory level of water quality may be kept in beaches and rivers, both for tourists and for residents.

Thus, the basic infrastructure (electrical installations, water supply systems, communications installations, waste disposal) limits the number of visitors that a city may receive, since its physical infrastructure may be in jeopardy. Most of the time, negative external effects arise when the development limit is exceeded, mainly during high seasons (Goeldner et al., 2000).

Within this dimension, some variables were analysed with the purpose of measuring the level of the competitiveness of tourist destinations that are part of the study: (i) public health; (ii) energy, communication and financial
facilities; (iii) public security; and (iv) urbanisation. The elements that compose such variables studied in the general infrastructure dimension are detailed below.

- **Public Health**

In the public health variable, some secondary data were taken into consideration for constructing the competitiveness index of destinations, such as the population's life expectancy, the number of outpatient clinics and hospital beds in the city, weighted by the local population in the destination. For the other elements of this variable, the study researchers collected primary data (raw data) in the cities that they visited. In this sense, aspects such as the appropriate distance from the city for emergency response services were assessed and the level of complexity that such services offer, as well as rescue equipment and levels of operation capacity during high seasons. Furthermore, the assessment included the need for vaccinations to visit the destination.

Another aspect addressed by the public health variable concerns the way the local population's sewage is treated. In this light, the assessment included checking whether there was a landfill site within the city and the distance of such landfill from residential areas. Moreover, the city's cleaning service was assessed in relation to the percentage of the population served as well as the diversification of such services (collection and sweeping). Finally, issues concerning the treatment of hospital waste were checked as well as the respective management plans and aspects connected with campaigns for educating the population about garbage treatment.
• Energy, communication and bank facilities

In this variable, some secondary data were also collected for the competitiveness analysis of tourist destinations involved in the study. Thus, elements such as the number of pay phones and post offices were surveyed and weighted against the city’s population, as were blackouts during the high season (used as a proxy of the destination’s communication system).

Other quantitative data, of primary nature, were also collected. Hence, the assessment also covered the quantity of banks and cash machines that accept international credit cards and the number of currency exchange establishments.

Specifically in relation to aspects connected with electric power in the cities, the seasonal and daily regularity of supply and percentage of houses served by the electric power supply were verified (as a proxy of the energy supply in the destination).

• Public safety and security

The analysis covered the following elements in the public safety and security variable:

a. Based on primary data, the number of murders that occurred in the destination and the number of police officers available (city-wise and state-wise) were surveyed and weighted against the local population size.
b. In relation to the safety and security of tourists in the cities included in the study, the existence of programs or special police forces to serve and protect them and the attention provided to such tourists were also checked.

Additionally, the assessment covered evidence connected with the public safety structure available (equipment and rescue teams, for instance) for citizen protection agencies, such as the fire department, civil defence, civil police and city police stations.

• Urbanisation

Considering the city's assets, the survey covered the quantity and state of repair of some items considered to be important, such as lampposts, garbage bins, bus stop sheds, pay phones, signs, public restrooms, etc.

In addition, for competitiveness assessment purposes, the study considered the availability of the appropriate street signs (signs and numbering) and the existence of enough drainage elements, such as storm drains for the drainage of rainwater.

4.2.1.2 Access

Access is one of the most important dimensions for tourism. The World Tourism Organization (1993) defines tourism as the "activity of people who travel to or stay in places outside their usual environment for not more than one consecutive year, for business, leisure or other purposes". Therefore, the
possibility of providing access is intrinsically connected with tourism, since a tourist trip implies that travellers leave their "usual living environments" to visit one or more tourist destinations.

Even though several factors attract a traveller to a given destination, the accessibility component is essential, because the scarcity of access to a destination may discourage the traveller’s trip. Lamb and Davidson (cited in Page, 2001) affirm that transportation is one of the three essential components of tourism. The other two are the tourist product (supply) and tourist market (demand and tourists themselves).

Access, as a factor that facilitates or obstructs the movement of tourists, is present in three stages of a trip (Cooper et al., 2001; Acerenza, 2002): (i) when tourists leave and return to their usual living environments (their region of origin) until their first destination; (ii) between the first destination and the other tourist destinations visited in a trip; and (iii) the movement within the tourist destination, so that tourists may go to various places and tourist points of their interest, including lodging facilities, tourist attractions and transportation terminals, among others. The scheme shown in Figure 5 illustrates the stages in which access is relevant.
Two essential aspects are connected with the concept of access: the existing transportation infrastructure for this connection (e.g. a highway) and the transportation service offered by means of the infrastructure (such as a bus line between nearby cities). In relation to attributes concerning both the infrastructure and the service, some assess quality and service levels, such as number of connections offered, variety of transportation modes that serve the destination (air, road, waterway and railway transport), reliability of transportation services (regularity and punctuality), integration among the various transportation modes, price and safety (Palhares, 2003; Page, 2001).

Finally, it is essential to stress that the infrastructure and transportation services are arranged in a network format. These transportation networks are composed of various nodes, which may be the regions of origin of the trips as well as tourist destinations, which are interconnected. Depending on the arrangement of such networks, the accessibility of some nodes may be high, generating a
movement of tourists on their way to or from other locations. This is the case, for instance, for hubs and gateways, respectively represented by nodes H and G in Figure 6, according to the scheme of a hypothetical transportation network (Lohmann, 2006, Page, 2001).

Figure 6: Scheme of a hypothetical transportation network

With a theoretical approach, it is possible to state that hubs have “spatial qualities of centrality and intermediation that increase the importance and the traffic levels of hubs strategically located within the transportation system” (Hoyle & Knowles, 1998:2). By contrast, in a gateway, there is the notion of intermediateness, which may be “extended by an association with a function of a stop point where visitors are sent to other centres or resorts” (Pearce, 2001:31). Furthermore, Burghardt (1971) discusses the idea that gateways, unlike central places (e.g. hubs), tend towards the end of a confluent area. Gateways are usually compared with a funnel through which visitors converge from different routes to access a given point and from which they may disperse or not, depending on the existing nodal function in the other nodes.
Hence, the following variables were taken into consideration in the assessment of the competitiveness of tourist destinations in the Access dimension: (i) air transport; (ii) road access; (iii) other types of access (waterways and railways); and (iv) the transportation system in the destination. The elements of such variables are described next.

i. Air transport

Destination competitiveness, from the perspective of access by air transport, is not restricted to the existence of airports in the city's territory. Thus, an extended analysis covered aspects concerning the appropriateness of the distance between the main airport, which serves the destination, and the city centre, as well as the coverage, in terms of approval, of flights (domestic and international) and the availability of airlines that actually have regular flights to this airport.

Furthermore, we identified whether the destination is served by other airports, in addition to some of their structural components, such as the type of pavement of landing runways and the infrastructure as a whole, based on items such as (i) the tourist service centre (besides the availability of employees that speak foreign languages); (ii) stores and restaurants; (iii) car rental stores; (iv) bank and currency exchange services; and (v) ombudsman services.

ii. Road access

Similarly, destination competitiveness in relation to road infrastructure was analysed based on the following elements: (i) appropriateness of the distance
between the closest bus station and the destination’s centre; (ii) infrastructure in the main bus station; and (iii) availability of employees that speak foreign languages at the destination’s tourist service centre, if any.

Specifically in relation to item (ii), we identified the following elements: (i) stores and restaurants; (ii) car rental stores; (iii) taxi services; (iv) bank and currency exchange services; (v) user comfort; (vi) restrooms (cleaning and conservation); (vi) road paving; (vii) lighting of boarding/alighting platforms; (viii) facilities for disabled people; and (ix) ombudsman services.

iii. Other types of access (waterways and railways)

Before detailing the analysis elements for this variable, it is important to highlight that they were only taken into consideration when they were relevant for the access to destinations.

Thus, for these two modes of access, the following items were considered to be elements for the measurement of competitiveness: (i) the existence of alternative modes of transportation to access the destination; (ii) the extent of the participation of these modes in relation to the total quantity of tourists that visit the destination through other accesses; (iii) the transportation services provided to visitors at waterway and railway stations to the destination’s centre (buses, taxis, vans and others); and (iv) infrastructure of terminals.

Specifically in relation to rail infrastructure (as well as their respective railway cars and vessels when applicable), the following elements were assessed: (i) the tourist service centre (as well as the availability of employees that speak
foreign languages); (ii) stores and restaurants; (iii) car rentals; (iv) taxi services; (v) bank and currency exchange services; (vi) comfort and restrooms; (vii) safety and security; (viii) facilities for disabled people; (ix) ombudsman services; and (x) lighting of boarding/alighting platforms (only at the railway station).

iv. Transportation system in the destination

This assessment considered the distances from the city’s main airport and its bus station to the city centre as well as the connecting transport options between such points (types of buses, taxis, vans and others). The overall quality of transportation infrastructure was examined by considering the following elements: (i) level of traffic jams in the city’s traffic; (ii) ease of parking; and (iii) bus, subway and taxi services for the main tourist attractions. Finally, we identified the regularity of tourist transport to the city’s main attractions.

4.2.2 Macro-dimension “Tourism”

Figure 7 summarises the macro-dimension “Tourism” and its respective dimensions and variables examined in the competitiveness model of this study.
4.2.2.1 Tourist equipment and services

In recent years, the emphasis on the importance of tourist equipment and services appropriate for a given market, or tourist segment, has gained greater relevance in the development of the activity, because tourist satisfaction is influenced, among other variables, by the availability and quality of tourist equipment and services (Costa, 2004; Freire & Crowther, 2007; OMT, 2003).

While the infrastructure is usually supplied by the public sector, tourist services are often carried out by the private sector, since this is the source of income for a tourist destination. The concept of tourist equipment and services includes lodging facilities, restaurants, built attractions and retail stores, among others.

It is important to highlight that these economic activities are essential components for the development of a tourist destination and that they are
considered to be good indicators of the destination's quality and of trip value (Beni, 2001; Cooper et al., 2001; OMT, 2003).

In this sense, tourist destinations have placed greater emphasis on the provision of quality tourist products and services. It is also important to stress that the provision of quality services, in each tourist undertaking, is essential for the maintenance and achievement of competitive advantage (Cooper et al., 2001).

Another point to be highlighted is that tourism is considered to be an activity in which there is a high level of involvement – where people make a difference. Therefore, the high qualification of the people involved in the activity will allow companies to obtain a competitive margin and add value to the tourist destination. In this dimension, it is possible to highlight the necessity for human resources planning, since the provision of a polite and trained workforce to meet tourists' demands has been a difficult task for governments and for the private sector (Pereira, 2004; Go, 2001; Trigo, 2000).

The following variables were taken into consideration in the assessment of destination competitiveness in the Tourist Equipment and Services dimension: (i) tourist signs; (ii) tourist service centre; (iii) area for events; (iv) capacity of lodging facilities; (v) capacity of reception tourism; (vi) professional qualification; and (vii) restaurants.

1. **Tourist signs**

This variable examines the conditions of the destination's tourist signs to check if they meet the standards established by the Ministry of Tourism.
Additionally, the assessment considered the content of the information in the tourist signs designed for people who wish to access the destination’s and surrounding area’s main tourist attractions, including access for pedestrians, drivers or public transportation users.

ii. Tourist service centre

Tourist service centres were assessed to measure destination competitiveness by checking the strategic locations of such centres (such as at airports, bus stations, main attractions as well as the official tourism department) and assessing the availability of employees who speak foreign languages. Finally, tourist service centres were assessed in relation to the provision of informational tourist maps and promotional materials to visitors to the city.

iii. Area for events

In terms of this variable, the study sought to analyse the structures available in the destination for events. Two important aspects were assessed: (i) if the structure available was capable of holding various types of events (such as congresses, trade shows, seminars, parties and concerts/shows) and (ii) the location and distance of such areas from lodging facilities, airports, bus stations and occasional financial centres.

iv. Capacity of Lodging Facilities

Lodging facilities were assessed according to qualitative elements, such as the quality of services provided by international groups of hotel chains in the
destination. Additionally, cities were assessed in terms of offering hotel categories to tourists (economy, standard, luxury). In addition, we examined the destination’s capacity for preparing a local system for the standardisation of hotel quality, based on elements such as: (i) visits of independent consultants; (ii) physical aspects; (iii) provision of services; (iv) classification manual; and (v) disclosure of results on the Internet and in guides.

Finally, the assessment considered whether lodging facilities provided important services, such as online reservation systems, Internet access to guests and compliance with law requirements concerning accessibility for disabled people, as well as local incentives for lodging facilities to use clean sources of energy.

v. Capacity of the tourism reception

The assessment of tourism reception capacity took primarily two elements into consideration: (i) availability of employees who speak foreign languages at the locations where the service is provided and (ii) types of services provided by companies. The following are some of the services assessed: (i) city tours; (ii) tours to destinations in the surrounding areas; (iii) transfers; and (iv) guided visits (individually or in groups).

vi. Professional qualifications

The level of professional qualifications in destinations was analysed on the basis of three essential premises: (i) level of the educational institutions in the destination (technical and college education, for instance); (ii) existence of
continuous training programs; and (iii) areas of the tourism sector served by such institutions (tour guides, bars and restaurants, hotels and travel agencies).

vii. Restaurants

Finally, the analysis of this variable considered the qualification and guidance of owners and employees of establishments that sell food to the public, with respect to hygienic handling and preparation as well as instructions to companies and street vendors in terms of hygiene in the preparation of food.

4.2.2.2 Tourist products and attractions

Attractions provide destinations with the most important reason for leisure tourism. Many of the components of a tourist trip are demands deriving from consumers’ desires to get to know what a destination has to offer in terms of “to do” and “to see” activities (Cooper et al., 2001; Beni, 2001; Goeldner et al., 2000).

It is important to highlight that one of the most noteworthy characteristics of tourism is the state property of tourist products and attractions, namely the attractions and key activities that generate income, such as beaches, protection areas, museums, convention centres, exhibition halls and sports and leisure complexes.

According to Barbosa (2002), the public properties of tourist products and attractions may produce a gap in activity management, which reflects the
difference between public administration and the business and commercial characteristics of the activity.

However, procedures for the assessment and establishment of hierarchical levels of tourist attractions may allow, based on technical criteria, for identifying the specific values and qualities of each attraction as well as of the elements that influence the use of each one for tourist purposes. This would allow for planning and facilitate the decisions of governors, administrators, managers and entrepreneurs (Cooper et al., 2001).

First, one must assess the attractiveness potential of the element (product or attraction), according to the peculiar characteristics and interest that it may arouse in tourists. Afterwards, the aspects that will assist in the definition of this hierarchy are assessed. This criterion allows us to classify each attraction according to a pre-established scale. Thus, it provides the necessary elements for the differentiation of the characteristics and degrees of importance of each attraction, such as (i) current degree of use; (ii) representativeness; (iii) local and community support; (iv) state of preservation of the landscape in the surrounding area/environment; (v) infrastructure; and (vi) access (Goeldner et al., 2000).

The current degree of use allows for the analysis of the current volume of effective tourist flow and its importance to the city. It differs from the degree of interest because it represents the current situation instead of the possible one. A high degree of use indicates that the attraction has effective tourist utilisation (Richards, 2002). However, this effective utilisation may be
connected with the attraction or destination’s support capacity (see Swarbrooke, 2000). It has also been suggested that another form of measurement could be the existing quantity of beds in the destination and in the cities around it, considering a 100-km radius of the tourist main area.

Representativeness is based on the attraction’s uniqueness or rarity. The more similar to other attractions, the less interesting or preferential it becomes (Beni, 2001). Local support is measured according to the opinions of community leaders and analysed in terms of the degree of interest of the destination’s community in the attraction’s development and its availability to the local population (Pearce, 2001).

The state of preservation of the surrounding area/environment landscape is analysed by means of observation on-site or examination of existing documentation in order to check if environmental management pre-requisites are being observed (Murphy, 2001).

In relation to the infrastructure aspect, its existence and state of preservation are verified by means of direct observation, or based on existing documentation (Cooper et al., 2001). Finally, access is examined by taking into consideration the availability of existing routes and their conditions of use (Khadaroo & Seetanah, 2007).

Before the elements described in the previous paragraphs, the following variables were taken into consideration for the analysis of destination competitiveness in the Tourist Attractions dimension: (i) natural attractions; (ii)
cultural attractions; (iii) scheduled events; and (iv) technical, scientific and artistic activities.

Thus, for competitiveness purposes, in addition to the identification of the destination’s main attraction per variable (e.g. natural – beach; cultural – gastronomy; events – trade show; and technical activity – bird watching), we checked if each one of them had total capacity studies.

Additionally, the degree of the representativeness of the attractions from a qualitative perspective was investigated (considering, for comparison purposes, other attractions of destinations that are relatively close to the city analysed). Thus, representativeness was classified into three items: (i) unique or rare attractions; (ii) composed of small groups of similar elements; and (iii) composed of common elements.

Another important aspect was the state of preservation of the infrastructure. In this light, the attractions’ conditions and states of preservation were observed on-site or by using existing documentation, classifying as appropriate, regular (needs some improvements) or precarious (needs urgent intervention). Another piece of information directly related to the structure of the attractions of these four variables was the assessment of the number of employees available to assist tourists in the main attractions. Finally, for competitiveness purposes, compliance with the Ministry of Tourism’s accessibility requirements for disabled people was checked.

In addition, we examined the level of support from the local community for the development and use of the main attraction (per variable) and clear signs of
environmental degradation in the main attraction's surrounding area (per variable).

However, in relation to the attractions connected with scheduled events and technical, scientific and artistic activities, two specific elements were also considered: (i) the scope of each of these events (regional, national and international); (ii) and access conditions (only technical, scientific and artistic activities).

The variables for the research were defined according to the World Tourism Organization (2003), which states that local tourist attractions may be understood as the objects, equipment, people, phenomena, events or public demonstrations capable of motivating the movement of people to get to know such attractions. These can be classified into the following groups.

i. Natural attractions

Elements of nature that, when used for tourist purposes, start attracting flows of visitors (mountains, rivers, islands, beaches, dunes, caves, waterfalls, weather, flora, fauna).

ii. Cultural attractions

Elements of culture that, when used for tourist purposes, start attracting flows of visitors. They are the cultural values and assets of material and non-material nature produced by humans and used by tourism, from prehistory up to modern times, as testimonials of a culture (handicrafts, gastronomy, etc.).
iii. Scheduled events

Events that bring people together to address or debate topics of common interest or negotiate or exhibit business-related, professional, technical, cultural, scientific, political and religious products and services. Such events result in the use of tourist equipment and services (trade shows, congresses, seminars, etc.).

iv. Technical, scientific and artistic activities

These activities include construction work, facilities, organisations and research activities that motivate the interests of tourists and, because of that, require the use of tourist equipment and services.

4.2.2.3 Marketing and promotion

According to Gilbert and Bailey (1991), the tourism market is becoming more mature and the role of marketing more and more important for tourism organisations, since they need to increase their efforts to retain and expand their market shares. The tourist destination, defined as the set of public and private players from a tourist region, must be concerned with such changes.

Marketing is essential in terms of the provision of information and persuasion of possible tourists to visit a location. This is because, as such potential tourists gain experience by visiting other destinations, their perceptions of quality, which is directly linked to competitiveness, play an essential role in the repetition of the visit or in the recommendation of the destination to friends and
relatives. Implicitly or explicitly, tourists make comparisons between facilities, attractions and standards of services in various destinations (Kozak & Rimmington, 1999).

The marketing process and its management provide organisations and destinations with the tools for communication with their target markets (Valls, 2006). However, in relation to destinations, it is advisable to consider that public tourism departments have little or no control over the quality of the product that they are promoting, which requires integration with the private sector (Faulkner, 2001).

In this process, some actions must be outlined as follows: participation in trade shows and events, preparation of promotional material, disclosure and, in an advanced stage, e-business, maintenance of a local office to provide tourist information and incentives for the community to participate in decisions about the destination’s tourist activities (Valls, 2006).

Another factor connected with the destination’s promotion is the marketing strategy to be used to attract pre-identified demand segments. According to Gilbert and Bailey (1990), it is essential that the variation and quality of the conveniences and facilities offered be compatible with what was informed to the target markets by means of the marketing process.

Therefore, the marketing plan plays a relevant role in the location’s marketing combination. It succeeds the definition of its strategy – image to be disseminated, obstacles to be overcome, attractions to be targeted, techniques
and effort to promote the destination – and establishes the actions that will be taken (Cooper et al., 2001).

Tourist inventories, analysis of competing destinations, objectives of preserving the location, estimates of tourist demand, studies of carrying capacity and awareness of distribution channels are all elements that must be considered in strategic planning and in the subsequent preparation of plans. All these elements can be obtained by means of research efforts linked both to a specific date and to a continuous period (Valls, 2006).

Finally, state and federal initiatives to improve these various aspects of tourist activities must be carefully followed, so that the destination can avoid repeated or conflicting efforts. Taking part in forums and council meetings at these governmental levels can be beneficial for local marketing and planning (Zamot et al., 2009; Zapata, 2003).

Therefore, the following variables were taken into consideration for the assessment of destination competitiveness in the Marketing dimension: (i) marketing planning; (ii) participation in trade shows and events; (iii) promotional material; and (iv) the destination's website.

1. Marketing Planning

Marketing planning was assessed in terms of the important aspects for its effectiveness. In this sense, marketing plans considered the following elements for competitiveness measurement purposes: (i) duration; (ii) formal monitoring performed by its managers; and (iii) definition of performance indicators.
Furthermore, this variable was also assessed in relation to its preparation process, namely information that may support the document (e.g. survey of tourist demand) and interaction with the private sector (travel agencies and operators). Finally, we identified the mechanisms necessary to carry out the actions proposed in the planning, such as the resources/funds provided in the destination city budget.

ii. Participation in trade shows and events

This variable was initially analysed based on a formal policy of participation in trade shows and events that are likely to promote tourism. Furthermore, we identified whether the city had conducted a promotional event of this type in the past five years.

Finally, besides participation in events, this variable identified the types of actions that the destination takes in order to measure the results of such activities. These measurement instruments may be detailed in (i) surveys at the event itself; (ii) counting visitors to stands/booths; (iii) counting established relationships; (iv) counting the number of deals closed; and (v) assessing the value of deals closed.

iii. Promotional material

For the purposes of the competitiveness of tourist destinations, this variable initially examined two important aspects: (i) if the material produced reflects the local reality of the city and (ii) its suitability for the segments that it aims to reach.
The type of material produced (as well as occasional versions in foreign languages) was also evaluated. Examples of promotional materials taken into consideration were items such as (i) pamphlets; (ii) printed materials for the sale of city attractions; (iii) CDs or DVDs; (iv) souvenirs, such as caps, t-shirts and keyrings; and (v) maps. Additionally, care concerning correct writing was also analysed (both in the material in Portuguese and in the versions in foreign languages).

Besides these elements, the destination’s promotional material was examined in terms of important information in its content. Accordingly, the study verified whether the produced material had information on the tourist products traded at the destination and its infrastructure for events (in print and online, free of charge or not) as well as an events schedule (also in print and online, free of charge or not).

Finally, two final elements were examined in this variable: (i) warnings for the fight against the sexual abuse of children and teenagers and (ii) tourist responsibility to preserve the environment. Thus, we checked whether the destination’s promotional material addressed these important issues.

iv. Destination’s website

Here, we checked the use of important elements for the purpose of destination competitiveness. In addition to checking the city’s webpage, one of the goals of the consultants was to confirm if the webpage had tourist information at all.
In this regard, one of the competitiveness elements assessed was how up-to-date the site was at the time of the survey. In addition, the availability of versions in foreign languages and spelling errors were also checked. Moreover, as before, we again identified whether there were warnings concerning the fight against the sexual abuse of children and teenagers and tourists’ responsibility to preserve the environment. Finally, a last element evaluated whether the destination’s main website about tourism provided information on other cities that integrate the tourist region analysed.

4.2.3 Macro-dimension “Public Policies”

Figure 8 summarises the macro-dimension “Public Policies” and its respective dimensions and variables examined in the competitiveness model of this study.

Figure 8: Macro-dimension “public policies”
4.2.3.1 Public policies

The public policies for the development of the tourism sector are prepared in different spheres of government: city-wise, regional, state-wise, national and international. In this light, different departments implement planning and interventions, leading to different sets of goals and results (Burns, 2004; Zamot et al., 2009).

According to Cooper et al. (2001), it is important to highlight that tourism development will not attain excellence if it is only handled by the public sector or by the private sector, because, in theory, the former will aim at maximising social benefits and the latter will aim at maximising profits.

Wanhill (1977) asserts that the essence of successful tourism development consists of a partnership among the various stakeholders in this sector, such as governments, state or semi-state departments, voluntary organisations and non-profit organisations, the private sector, the host community and visitors.

From a broader perspective, what is required is a balanced development of the various facilities necessary to meet visitors' requirements and to meet the local population's needs. It is also important to stress that such goals should not be achieved at the expense of the environment or host community. Therefore, policy implementation becomes a process of balancing the various goals and not maximising any one of them separately (Lickorish, 1991).
Thus, the following variables were taken into consideration for the study of the competitiveness of tourist dimensions in the dimension "Public Policies": (i) city structure for tourism support; (ii) degree of cooperation with the state government; (iii) degree of cooperation with the federal government; (iv) planning; and (v) existence of public/private cooperation.

1. City structure for tourism support

In this variable, the city structure available to support tourism was assessed in relation to its exclusivity with the sector, as a department or a public entity. Furthermore, we assessed its autonomy due to the existence of its own sources of funds as well as the percentage of such funds in relation to the total budget. Another aspect evaluated was the effectiveness of part-time local offices connected with tourism in the analysed destinations.

In respect to the exclusive (or non-exclusive) structures of tourism within the scope of local public administration, we measured their interactions with other offices in the city administration. In this sense, information concerning partnerships with other offices was considered in the measurement of destination competitiveness. In such cases, the projects considered were those performed in the competitiveness pillars considered by this study: (i) general infrastructure; (ii) access; (iii) tourist infrastructure; (iv) tourist attractiveness; (v) marketing; (vi) public policies; (vii) regional cooperation; (viii) monitoring; (ix) economic activities; (x) business capacity; (xi) social, environmental and cultural aspects; and (xii) professional qualification.
Finally, this variable was also analysed based on modern aspects of the public city administration, such as the participation of destinations in fiscal and administrative refresher programs, as well as the occasional use of current mechanisms for the participation of the population in the administration of city governments, such as the budget.

ii. Degree of cooperation with the state government

The degree of cooperation among destinations and their respective state governments was measured by two elements: (i) participation in state tourism forums and (ii) occasional investment received by the state government.

In the former, the intention was to assess, besides the occasional participation of destinations in their respective state forums, the way it occurs (direct representation or through regional offices, for instance). State investment in destinations was evaluated on the basis of the same competitiveness pillars considered in this study and listed in the previous variable.

iii. Degree of cooperation with the federal government

The degree of cooperation between destinations and the federal government followed two essential components: (i) participation of destinations in programs or projects sponsored by the Ministry of Tourism and (ii) occasional investment received from the federal government.

Some of the programs in which destinations were able to work in cooperation with the Ministry of Tourism and that were considered for the analysis of the
respective levels of competitiveness are listed below: (i) tourism information system; (ii) regionalisation management and planning; (iii) structuring of tourist segments; (iv) structuring of production associated with tourism; (v) support of regional development (PRODETUR); (vi) support of tourist infrastructure; (vii) tourism standardisation; (viii) tourism certification; (ix) professional qualification; (x) national promotion of Brazilian tourism; (xi) support of national sales; (xii) international promotion of Brazilian tourism; (xiii) support of international sales; (xiv) attraction of investment; (xv) tourism financing; and (xvi) promotion of structured itineraries.

Federal investment in destinations was evaluated based on the same competitiveness pillars considered in this study.

**iv. Planning**

Destinations' planning capacities, with the purpose of measuring their competitiveness levels, was assessed according to certain elements. The first consisted of assessing the preparation of the master city plan (*Plano Diretor Municipal*) for the destination. In addition, when such a plan had been prepared and implemented, it was checked to see whether it was considered to be in the tourism sector. The development of other formal plans for the tourism sector in destinations, as well as the year applied, was also taken into consideration.

**v. Existence of cooperation between the public sector/private sector**

Initiatives that favoured destination competitiveness and the various projects involved in the cities and the private sector were considered. The activities
selected for analysis were based on UNWTO's recommendations for public sector/private sector cooperation. Some examples include (i) improvement in the destination's image; (ii) preservation of historical and cultural resources; (iii) training and education activities for tourism; (iv) improvement in the destination's security and safety; (v) protection of the environment; (vi) standardisation of quality standards; (vii) distribution and electronic marketing; (viii) consumer protection; (ix) improvements in the infrastructure of transportation and basic services; (x) participation in tourism trade shows; (xi) joint participation in marketing campaigns; (x) funding new tourist businesses; (xi) tax reductions for environmental, social and cultural preservation; (xii) provision of technical support for innovating products; and (xiii) social projects for reducing inequalities.

4.2.3.2 Regional Cooperation

The designation of tourist regions provides the basis for regional planning, which generates the balance of amenities and facilities desired by tourists. It also allows transferring tourism from one region to another, thereby opening new areas as existing ones become saturated (Araújo & Bramwell, 2002).

The key characteristics of tourist regions are (i) logical geographic units; (ii) the existence of significant tourist attractions; (iii) access or possibility of access provision; (iv) internal transportation networks; (v) the existence of tourist equipment, services and infrastructure or the possibility of their development; and (vi) administratively subject to being planned and managed (Beni, 2001; Ladeiras et al., 2010).
In development regions, it is often desirable to establish a tourist centre that will operate as an axis and gateway for several parts of the region. This allows the public and private sectors to concentrate facilities and to obtain development-related economies of scale. However, if there are already renowned destinations and with structure in the region, then such destinations may operate as tourist centres (Barbosa et al., 2009).

An important aspect of attraction planning is the concept of a "set of attractions" or "concentration". The benefits resulting from this include (i) attracting more tourists to the area; (ii) longer stays; (iii) supporting the main attractions, such as rural or coastal zones; (iv) keeping tourists away from environmentally sensitive areas; (v) promoting economies of scale in terms of infrastructure provision; and (vi) preventing negative impacts and providing easier control (Barbosa et al., 2009; Ladeiras et al., 2010).

In Brazil, the adoption of the tourism regionalisation model requires a new attitude and new strategies for the management of public policies. This generates changes in the relationship among the levels of the public government and civil society in respect to the negotiation, agreement, planning and social organisation as well as in understanding the regions (Ministério do Turismo, 2004).

For this model to be successful, cooperation between the various segments involved is necessary, including society organisations, government offices, businesspeople and workers, educational institutions, tourists and communities. This process of cooperation allows for (i) increasing the quality of the tourist
product; (ii) diversifying the tourist offer; (iii) structuring tourist destinations; (iv) expanding and qualifying the job market; (v) increasing the competitive insertion of the tourist product into the domestic market; (vi) expanding the consumption of the tourist product in the domestic market; and (vii) increasing the rate of stay and average spending of tourists (Ministério do Turismo, 2004; Araújo & Bramwell, 2002; Fontes Filho et al., 2009).

Regionalisation is the distribution of a geographic space into regions with various purposes, such as the integrated and shared sale, promotion, management and planning of tourist activities (Ministério do Turismo, 2004; Araújo & Bramwell, 2002; Fontes Filho et al., 2009). Therefore, the following variables were taken into consideration for the assessment of destination competitiveness in the Regional Cooperation dimension: (i) governance; (ii) regional cooperation projects; (iii) definition of itineraries; and (iv) sales promotion and support.

i. Governance

Governance consists of development policies governed by assumptions about structural elements, such as management, responsibility, transparency and lawfulness in the public sector.

One of the elements surveyed in this variable was the verification of the kind of organisation (e.g. duly institutionalised and formally established, according to regionalisation principles) responsible for the coordination of actions in the destination, such as regional governance office, regionalisation chamber or other forms of organisational arrangement.
However, in addition to the type of organisation, we also checked the occasional partners and social players that play a part in its composition, such as professional associations (ABAV, ABIH, etc.), universities and education institutions, "S System" representatives and public administrators of tourism.

Another important aspect considered in the assessment of competitiveness within the scope of this variable was the verification of periodic meetings of the regional governance office members in terms of (i) periodicity; (ii) accessibility for members; and (iii) their representatives' awareness and decision-making power. In addition, the interaction, by means of periodic meetings, with other levels was also surveyed.

In relation to its effective operation, we checked whether the regional office of the destination had an executive manager to coordinate its activities. In addition, the type of support provided for the operation of its activities, in terms of origin (private sector and state and city governments) and nature (tickets, overheads, purchasing equipment and materials, loans, etc.) was checked. Finally, other aspects were assessed, such as (i) physical office structure and (ii) availability of own resources.

ii. Regional cooperation projects

Within the scope of the Tourism Regionalisation Program, the search for interaction and integration movements of the various players connected with the tourism chain, with the purpose of promoting the union of such players around their common interests, is an essential premise.
Based on this parameter, the variable examined aimed to assess, among other aspects, which actions (meetings, seminars and workshops, for instance) had occurred in the destination's recent past, with the purpose of making the various players aware of the importance of regional cooperation in tourism. In these actions, an attempt was also made to identify the nature of the players involved, such as representatives from the public and private sectors, organised civil society and members of the tertiary sector. Within the scope of joint projects, the purpose was also to identify partnerships in the city tourism department and other neighbouring cities.

In relation to projects connected with the development of tourism, we surveyed the city's competitiveness at the regional office level and identified which information dissemination instruments were employed, such as (i) events held in the city; (ii) appropriate media; (iii) Internet; (iv) the city's official documents; (v) the distance support system of the Tourism Regionalisation Program; (vi) social networks; and (vi) other forms of information dissemination tools.

With the purpose of assessing the level of interaction between the regional office and the state forum, their representativeness and effective participation were also verified and assessed by means of the occurrence of designs submitted to the state panel of tourism.

Finally, regional cooperation projects in tourism in the destination were assessed in relation to their structure and format. Thus, we identified the existence of integrated tourist development planning for the region. However,
the measurement of competitiveness in this element was not restricted to the preparation of the plan; it was extended to important aspects, such as (i) identification of the people in charge of the progress of projects (appraised by means of responsibilities formally defined); (ii) effectiveness of the plan (examined by means of actions already implemented); (iii) efficiency, which may be measured in the evaluation of communication flows among the various players involved in order to avoid duplicity of actions; and (iv) control of activities carried out by a city office by means of formal reports to the regional office or periodic meetings.

iii. Definition of itineraries

Tourist itineraries must provide visitors both with a broad and clear view of the destination. The definition of itineraries is an essential strategic tool for achieving this objective. Therefore, the effective definition of itineraries, based on the insertion of unique products into domestic and foreign markets, allows us to assess investment needs and helps increase the flow of tourists and their time of stay.

Hence, this variable was examined in relation to certain essential elements. One of these elements was to check the main players' nature in the processes of tourist itinerary preparation, such as national and international operators and/or agencies, members of the private sector, college education institutions, the tertiary sector and others.

Another important aspect in relation to itineraries was to assess tourist segments (sun and beach, eco-tourism, cultural, adventure and others). In
addition, we identified whether the prepared itineraries take into consideration the scopes of agencies and operators (national and international).

Finally, the study also considered whether they used information on tourist inventories and their sustainability based on (i) preparation (using carrying capacity studies, with the assistance of specialised consulting firms, on impacts on the environment and on the sustainability principles of the regionalisation plan) and (ii) control (monitoring environmental, social-cultural and economic impacts).

iv. Sale support and promotion

Within the scope of regional cooperation, when promotion and sale are carried out in an integrated way, the result is an increase in the flow of tourists. However, these two processes need joint strategies between the private sector and the public administration for the attainment of concrete results. Thus, one of the aspects evaluated in this variable is connected with the nature of the partnerships between the destination and other cities.

Therefore, the study considered the joint participation of cities in events aimed at sales and promotion at three levels: (i) international; (ii) national; and (iii) regional.

Another type of joint action for sales and promotion examined was the occasional participation of the destination, in a partnership with segment and/or regional players, in meetings and commercial business rounds with tour operators and travel agents in specific events.
Within the exclusive scope of promotion, we identified the actions performed between the destination and private sector and/other cities to advertise itineraries based on the following examples: (i) advertisements; (ii) publicity; (iii) merchandising; (iv) organisation of events; (v) promotional actions for target audiences; (vi) familiarisation tours; (vii) press trips; (viii) creation of slogans, jingles, news reports and documentaries; (ix) direct mail; and (x) electronic marketing.

The level of partnership was also assessed in relation to the preparation, production and distribution of promotional material together with other players, based on items such as brochures, CDs, websites, gifts and others.

Finally, three issues were considered in the analysis of destination competitiveness: (i) participation of the city in state groups that define promotion actions; (ii) effectiveness of public relations to allow the maintenance of good relationships among all stakeholders in the itineraries; and (iii) coordination of public offices with private agents in pricing itineraries.

4.2.3.3 Monitoring

Once a development plan has been implemented, it must be closely monitored in order to detect any deviations over time. Dwyer and Kim (2003) emphasise that the efficient use of information systems provides managers with the information necessary for understanding clients’ needs and fosters the better development of new products, in addition to the marketing produced by tourism organisations, whether in the private or in the public sector.
Wanhill (1997) emphasises that the tourism industry typically waits for the public sector to collect statistical information and to perform market surveys. By contrast, governments are interested in monitoring alterations in industry and performing surveys to identify social benefits and tourism costs.

Inskeep (1991) states that internal and external factors may influence strategy performance and confirms the importance of monitoring systems to qualify and keep researchers informed about significant changes and about how they must react in such situations. This assertion corroborates one of the key management principles: it is only possible to manage effectively what can be measured.

In this sense, two types of information are relevant: first, the better the management of the information system, the greater will be the company’s capacity in one destination to manage its products (Faulkner, 1995; Valls, 2006, Cooper et al., 2001). Second, the investigation results provide the basis of information that allow one destination to adapt to market changes by means of its marketing strategy as well as (i) statistics about tourist behaviour patterns; (ii) performance measurements capable of identifying problems; (iii) studies of tourist satisfaction (which will identify problems and opportunities); (iv) the economic, social and environmental impacts caused by tourism development; and (v) information that follows up and monitors the local population’s attitude towards tourism. This information may reinforce the tourism sector’s stakeholders’ capacity to estimate demand trends in order to guide long-term planning.
Lastly, strategic investigation and monitoring the competitive environment are integral parts of policy and strategy formulation, including the need to systematically assess the efficiency of the main policies and strategies implemented in order to improve destination competitiveness. Faulkner (1995), Valls (2006) and Cooper et al. (2001) all emphasise the importance of strict and comprehensive assessment approaches with regard to providing a more solid base for strategic decision making and stress the relevance of the shared analysis role in the assessment process as a key indicator as tourism goals are attained. Further, the exploration of the best forms of communicating survey results should improve their usefulness to decision makers.

Hence, the following variables were taken into consideration in the Monitoring dimension: (i) demand surveys; (ii) supply surveys; (iii) tourism statistics surveys; (iv) measurement of the impacts of tourist activities; and (v) specific sectors of study and destination surveys.

1. Demand surveys

Tourism surveys allow for the assessment of a certain situation based on the degree of knowledge related to tourists' assessments of the services offered in the place visited as well as their satisfaction, habits, attitudes and expectations. Understanding how tourists act on their trips, as well as their purchasing behaviour and trip habits, is relevant for the development of the tourism market.

Thus, in this variable, we identified what type of information is used by destinations to monitor local tourism demand. As an example of possible
sources, the following may be pointed out: (i) surveys performed by cities; (ii) administrative records (information derived from the tourist service centre, for instance); and (iii) surveys conducted by other organisations.

In the case of surveys performed by destinations, the identification of some important elements was sought, such as the forms (counting, selection or standardised questionnaire) and processes (simple or stratified random sample, for instance) of data collections employed directly on tourists.

Finally, the periodicity of demand surveys performed locally and their disclosure tools (such as internal managerial reports, general or systematic public disclosure to local press) were also investigated, as well as their effectiveness, measured in terms of applicability and employment for public policy, planning, marketing and promotions.

ii. Supply surveys

Based on supply surveys, a city becomes aware of its tourism supply and can plan its activity development to improve visitor satisfaction. Consequently, in this variable, we sought information on supply surveys employed by destinations, based on significant elements, such as (i) nature of data surveyed (number of hotels, rooms and people hired) and (ii) types of surveys performed (tourist inventories and record of tourism tools). Finally, we also investigated the periodicity of supply surveys performed and disclosure tools as before.
iii. System of tourism statistics

The tourism information system provides comprehensive knowledge of the tourism sector, making it possible for players to make better decisions. Further, it offers comparison data with other destinations and sufficient directions to develop a survey process on the reality of the tourism sector. In this way, one of its main purposes is providing information to system users in order that the public administration may have data to describe strategies and policies in the tourism sector.

Hence, this variable takes into consideration the elaboration of a technical inventory of tourism statistics as well as statistic situation reports. In addition, the systems or sets of indicators for the competitiveness of tourism supply were analysed in this variable together with a tourism policy follow-up system per level (federal, state or municipal).

iv. Measurement of tourism activity impacts

The implementation of a new activity in a certain region causes impacts that may bring about benefits or losses. From such a perspective, tourism has caused some remarkable effects on the environment. In order for the sustainable growth of tourism activities to take place, it is important to weigh up the positive and negative factors of its development in destinations by assessing how the sector affects the economy, local populations and the natural environment.
Thus, in this variable, an analysis of whether destinations monitor activities in connection with tourism was based on the following impacts: (i) economic; (ii) social; (iii) environmental; and (iv) cultural.

v. Specific studies and surveys in the destination

The development of tourism surveys and studies demands the creation of a specialised sector, with professionals experienced in the performance of surveys and data analyses. In this variable, verification was thus made as to destinations that have such a type of body in their respective structures and a relation regarding how much time they were operational when the activity fieldwork was performed.

4.2.4 Macro-dimension “Economy”

Figure 9 summarises the Economy macro-dimension and its respective dimensions and variables examined with the competitiveness model of this study.
4.2.4.1 Local economy

According to Blake et al. (2006), there are different methods to measure the impacts caused by tourism, namely an input-product matrix, national accounts matrix and a computable general equilibrium model. All these approaches have the advantage of calculating the relationship between tourism and other sectors in the economy.

The measurement of tourism-oriented expenditure effects on the local economy must take into account three levels of impacts: direct, indirect and induced. Tourism activities’ direct effects are the expenditure spent by visitors in establishments that supply tourism goods and services. Part of this value will immediately go out of the economy to cover the expenses of imports. Thus, the direct impacts of this expenditure tend to be smaller than the import values, unless in rare cases, in which the local economy manages to produce and satisfy all tourists’ needs (Goeldner et al., 2000; Cooper et al., 2001; Smeral, 2010).
In turn, trade establishments that receive the direct expenditure of tourists need suppliers, i.e., they need to purchase goods and services from other local sectors. For instance, hotels that hire services, such as civil construction, banks, accountants and food and beverage suppliers were identified. Parts of this expenditure go out of circulation once suppliers buy imported products to cover their needs. The economic activity generated from such purchase and expenditure is known as an indirect effect (Goeldner et al., 2000; Cooper et al., 2001; Smeral, 2010).

Lastly, the induced effect is created by the wages, rental fees and interest received in connection with tourism activities that, in turn, generate other economic activities. The interest paid to bank institutions due to loans give rise to more capital for future financing, thereby increasing economic activity (Goeldner et al., 2000; Cooper et al., 2001; Smeral, 2010).

The analysis of the economic impact of direct tourism verifies the expenditure flow associated with tourism activities, identifying changes in commerce, tax payments, income and employment generation and jobs managed by the tourism activity. In spite of each type of economic analysis having distinct features, they are often mistaken with one another (Ennew, 2004), since a problem typically requires different methodologies.

In addition to the economic importance of tourism activities for a destination, it is important to stress the significance of other economic activities as a way to add value and facilitate tourism development. The significance of air transport
for tourism and the need for high aircraft availability for passengers and the transport of cargo (Santo, 2004) may be pointed out as an example.

Snyman and Saayman (2009) find evidence in their research that strong economic activities and large corporations also make possible the flow of people and the interest of corporations of the tourism sector arising thereof (aviation, hotel network, events, restaurants, carriers etc.). Another point to stress is the number of industries in the destination that require qualified workforce, making an exchange of professionals between different economic sectors possible (Go, 2001).

Thus, the following variables were taken into consideration for the Local economy dimension: (i) relative participation of the private sector in the local economy; (ii) communication infrastructure; (iii) business infrastructure; and (iv) leveraging events and undertakings.

1. Relative participation of the private sector in the local economy

This variable verifies the participation of private initiatives relative to the total GDP of destinations. It is based on the premise that this participation reflects the level of local entrepreneurship and capacity of private firms to organise products and initiatives for the development of tourism-related businesses. Thus, with the aid of a secondary data survey, this variable sought to identify, for instance, the size of the GDP of destinations and the amount of expenditure of the private sector in the local economy. By surveying destinations' economic leverage capacity, it also sought to investigate the volume of credit operations relative to GDP.
Finally, one last aspect observed in this variable is connected with destinations' foreign trade flows, with the purpose of displaying the level of openness of the local economy. In this case, it was based on the premise that the larger the level of openness, the greater is the destination's competitiveness in several economic activities.

ii. Communication infrastructure

Pursuant to international studies of tourism competitiveness in several countries performed by the WEF (2007), communication infrastructure and access to electronic means of payment are important variables for the development of tourism. Thus, questions related to destinations' communication infrastructures in this variable were considered.

For tourism competitiveness, there are three key pieces of data: (i) number of lodging facilities that provide cable TV services with international broadcasts in lodging units; (ii) number of telephone lines per inhabitant in the destination (as a proxy of communication infrastructure); and (iii) number of cell phone companies that provide coverage for the regions in question.

iii. Business infrastructure

This variable reflects the other necessary conditions, promoted by the private sector itself, for the maintenance and development of tourism business in destinations. Thus, elements that may aid the development of tourism business in this variable, such as tax benefits and special financing lines, were sought.
iv. Leveraging undertakings and events

In this variable, the existence and condition of tourism undertakings based on the capital to sustain and improve sector development were assessed. We identified whether destinations had organisations capable of attracting events to their territories, such as Convention & Visitors Bureau operations. In addition, local structures for the reception of events, in connection with their sizes (small, medium and large), were measured. Finally, we identified whether destinations had other significant economic activities in their territories capable of moving their local economies.

4.2.4.2 Business capability

A country or region's economic performance is determined by the performances of companies in its markets. Therefore, internal and external factors, such as human capital, managerial practices and public policies, directly influence firm capacity for competition (Haque, 1995; Leonard-Barton, 1995; Figueiredo, 2003).

Thus, it is necessary to search for evidence on the ability of a destination to conduct tourism business. The qualification for the job, the presence of large companies and the production and export of local goods are examples of non-specific indicators of the tourism and travel industry which clearly identifying the business dynamics at a destination and associate it to competitiveness in attracting business tourism.
It is also necessary to involve more specific indicators of the private sector dynamics directly related to the tourism sector. Examples include dimensions such as the existence of national and international companies of hotels, restaurants and car rentals (WEF, 2008, 2009).

Therefore, the dimension business capacity is mainly oriented to a competence, or dynamic capacity, present in the destination, which is capable of promoting the necessary transformations in the tourism infrastructure. This is directly measured by the variables that put this dimension into operation and indirectly in its capacity to draw local political and social forces to the sector's development. It is different from the tourism infrastructure in that it considers the conditions for this development, and not the tourism structure already in place. An exception is made to that allowing the leverage of supply (Dwyer & Kim, 2003).

It is important to consider that most of the chosen indicators for the Business capacity are available in official reference sources, mainly federal, which assure the equal treatment of information, allowing its comparability. In addition, for the creation of categories and further scores in the index building, these data are more easily divided by separators (median, quartiles etc.).

As a consequence, the following variables were taken into consideration for this: (i) professional qualifications; (ii) presence of national and international groups in the tourism sector; (iii) competition and entry barriers; and (iv) number of large companies, branches and/or subsidiaries present.
l. Professional qualifications

The amateur status of the tourism business operation may seriously affect a destination's competitiveness. Thus, the variable in question sought to identify the types of education institutes established in the city, such as: (i) technical schools; (ii) universities; and (iii) units of the S system (Sebrae – Brazilian Support Service for Micro and Small Companies, Sesc – Brazilian Commerce Social Service, Senac – Brazilian National Educational Service for Commercial Learning and Senai – Brazilian National Service for Industrial Learning). In addition, it also sought to identify whether destinations had foreign language schools in their territories.

Another important aspect assessed for the purpose of competitiveness was the investigation of the local workforce in the tourism sector, in terms of hierarchical titles. We assessed whether people educated in the destination were able to occupy basic and technical operation positions as well as supervision and management positions.

ii. Presence of national and international groups in the tourism sector

This variable was assessed based on two main elements, i.e., on the identification of the presence of foreign corporate groups in the tourism sector in specific branches: (i) hotels and (ii) vehicle rental companies.
iii. Competition and entry barriers

This variable assessed the competition of certain tourism services and their capacity to improve the competitiveness of the destination. In this sense, for instance, we assessed the existence of local productive arrangements and examined whether the undertakings were serviceable.

Another element considered for measuring destination competitiveness was the assessment of entry barriers significant for the creation of a new tourism business such as (i) the lack of land or physical space; (ii) the lack of land regulation; (iii) access and building infrastructure; (iv) legal barriers and tax disincentives; (v) scarceness of qualified personnel; and (vi) difficulties obtaining environmental licenses. Finally, effective standards of competition in terms of price, quality differentiation and market focus (specific niches) were identified.

iv. Number of large companies, branches and/or subsidiaries

In addition to direct tourism undertakings, another variable useful to capture elements of the business sector with the potential to leverage tourism activities derives from the number of branches and subsidiaries of large companies in the destination.

This variable covers both the ex ante aspect, i.e., that typically companies make the decision to establish subsidiaries when certain economic, social and logistic conditions are fulfilled, indirectly reflecting a capacity to absorb new business, and an ex post as well, when the existence of subsidiaries contributes to
drawing tourists, initially to business and, often, afterwards, to leisure activities. In this vein, this variable sought to identify the large companies' properness in connection with the size of destinations.

4.2.5 Macro-dimension “Sustainability”

Figure 10 summarises the Sustainability macro-dimension and its respective dimensions and variables examined with the competitiveness model of this study.

4.2.5.1 Social aspects

According to Higgins-Desbiolles (2006), developing countries are encouraged to promote tourism as a tool for economic development as long as it acts as a development promoter of other economic activities due to being less destructive than extractive industries.
In the literature, it is commonly emphasised that tourism, in addition to offering economic benefits, can generate environmental, cultural and social gains. Tourism is pointed out as an activity capable of contributing to the cultural preservation in a period that a homogenisation of culture is taking place due to globalisation (Lage & Milone, 2000; Archer & Cooper, 2001).

Another aspect to be observed is related to the social benefits that tourism may generate for a destination, such as (i) improvements in the quality of life; (ii) increases in individual welfare; (iii) stimulus to understanding and respecting other cultures; (iv) expansion of socioeconomic development; (v) and incentives for the environment and local population protection (Bramwell, 2001; Murphy, 2001).

According to Gooroochurn and Sugiyarto (2004), it is perceived that quality of life in the destination will contribute to tourist experiences during their visit. Thus, we may assume that the quality of social aspects adds value to the destination, too.

The social dimension in this study aims at assessing the direct and/or indirect relationship with tourism activities, taking into account the perception of the current reality and its relationship with the present or future need for the preservation and development of tourism.

As such, the following variables were taken into consideration in the Social aspects dimension: (i) education; (ii) jobs generated by tourism; (iii) policy to fight and prevent sexual exploitation; (iv) use of attractions and tourism facilities by the population; and (v) citizenship.
I. Education

This variable allows us to assess whether the local population is prepared to absorb the direct and indirect employment created by tourism. In order to have the activity implemented and be kept in a sustainable form, it is necessary to evaluate the basic educational system within the limits (or in neighbouring areas) of the city. With the purpose of creating an attractive scenario for tourism enterprises to be established, be maintained or to grow in the city, the need for an assessment of the qualifications and specialisation supply for the local population arises.

Hence, with the aid of secondary data, this variable was assessed based on information related to the Municipal Human Development Index – Education and Development of Basic Education (Índice de Desenvolvimento da Educação Básica) for the city and state networks, in relation to the average in the country. Other important data considered for destination competitiveness based on the education variable were (i) gross rate of attendance at schools; (ii) literacy rate; and (iii) average number of years of education.

In relation to investments in the local education network, aspects related to compliance with the mandatory investments in this area were also assessed, as well as its composition in connection with the various education ambits (children, elementary and high school, for instance). Finally, the coverage of inhabitants (per age range) with access to the education system was also assessed. Lastly, destinations were surveyed in regard to the supply of courses
directly and indirectly related to tourism. In this vein, the quality thereof, as well as the types of language courses provided locally, was sought.

ii. Employment generated by tourism

This variable is related to the impact of tourism in the generation of employment for the destination’s economy. This analysis is based on the premise that tourism can employ the local population to avoid people migrating to the destination, which may cause deep fractures in social unity, the rupture of urban balance and the overuse of the existing infrastructure, with negative social consequences.

Thus, and based on secondary data, the rate of the workforce applied in the activities typical of tourism in the destination was surveyed. In addition, in this variable, we assessed the degree of informal jobs or temporary employment in the city’s tourism sectors, such as in (i) hotels; (ii) restaurants; (iii) reception agencies; and (iv) travel agencies.

Finally, aspects connected to the main deficiencies in the make-up of the local workforce were assessed: (i) hygiene; (ii) literacy; (iii) elementary, professional and post-graduate levels of education; (iv) languages; (v) management of businesses and attractions; and (v) individual certifications.

iii. Policy to prevent sexual exploitation

The “tourist for sexual purposes” category incurs expenditure related to illegal and irregular activities, and thus it does not contribute to employment and
income generation. The destination becomes, in this way, unsustainable. The existence and maintenance of such activities generate problems for the city’s image.

In this light, one of the elements surveyed in this variable was related to the policies employed to fight child and teenage sexual exploitation, when such a problem recognisably exists. The assessment was based on two basic premises: (i) policy content and (ii) support to programs related to the topic.

In the first case, we identified the elements of the city’s policy based on programs registered in municipal councils related to the topic in the city and the participation of tourism councils, the local business sector and organised civil society, as well as external bodies (such as police departments, public prosecutor’s office and municipal guard).

In the case of support to existing programs on the part of the destination, the purpose was to study the levels grounded on items, such as financial and institutional support, support to awareness-raising campaigns and to inspection bodies, as well as other initiatives.

However, we also identified any degrees of formalisation in the city in terms of the restriction of advertisement campaigns that may have sexual connotations and to the nature of this commitment based on, for instance, documents of the city government, communication departments, tourism bodies or other instances related to the topic as well as class entities. Another important aspect assessed was knowledge of misdemeanour report tools (e.g. Disque 100 – Brazilian help number to denounce children sexual exploitation). Lastly, data
related to denouncing child and teenage sexual exploitation was also assessed, over the past three years (sexual exploitation with no intermediation and prostitution).

iv. Use of attractions and tourism facilities by the population

The acceptance of tourism activities as something positive for the population makes it feel more comfortable in relation to tourism. The use of attractions and tourism facilities thereby fosters social inclusion. In this vein, the variable in question aimed to investigate evidence of the effective use of local attractions (natural, cultural, artificial and technical-scientific) by the population, the nature of use (free or paid) and the elaboration of incentive programs for the population’s use of the functionalities.

v. Citizenship

Communities’ involvement in tourism activities is good for the extension of the benefits gained from tourism as well as the mitigation of social problems. Mitigating social impacts means increasing the sustainability possibilities of the tourist destination. Local society must be aware of how it can participate in tourism activities in order to contribute its specific knowledge on the place where it lives, and programs must be developed along this line of thought.

In this vein, the assessment elements of the competitiveness of this variable can be divided in two modalities: (i) the community’s awareness-raising formal policies about the tourism sector and (ii) tourists’ awareness-raising formal policies about the community they are visiting.
In both cases, in addition to the verification of these policies, we identified the instruments of disclosure, in addition to (i) the emphasis of the community’s awareness-raising content in connection with positive and/or negative impacts and (ii) topics discussed with tourists (with respect to the environment, culture and local population).

The population participation in subjects related to tourism was also an object of analysis in this variable. In this regard, we considered the application of opinion surveys with the local community and occasional and effective participation in decisions about tourism projects (through tourism municipal committees, public hearings and forums).

Another element observed for the analysis of destination competitiveness was the participation of organised civil society in tourism development. The purpose was to assess which local organisations were engaged in this process, such as resident associations, non-governmental associations, labour unions and cooperative societies.

Lastly, secondary data were considered, such as (i) the Municipal Human Development Index; (ii) Municipal Human Development Index - Longevity; (iii) income ratio between rich and poor; (iv) population Gini index; and (v) per capita income.

**4.2.5.2 Environmental aspects**

The establishment of sustainable standards of development has captured the attention of all society throughout recent years. The contribution of the tourism
sector in this effort is highly significant. Thus, nature and the environment are main factors for the type of tourism that integrates socioeconomic development and environmental preservation (Swarbrooke, 2000; Bramwell, 2001; Murphy, 2001). This commitment is corroborated by the World Tourism Organization (1993), which conceptualises it as ecologically supportive in the long-term, economically feasible and ethically and socially equitable for the local communities, requiring integration to the environment, natural, cultural and human environments and respect to the vulnerable balance that characterises many tourist destinations.

UNWTO also identifies an increasing awareness of the main players involved, which is expressed in public and private sector initiatives and in the development of the use of clean technologies to reduce the negative impacts caused by tourism. However, these actions are insufficient to assure the competitiveness of natural attractions. According to Cruz and Zouain (2004), in Brazil the presence of some factors pointed out by UNWTO as barriers to environmental preservation can be observed, namely:

- Difficulty integrating tourism public policies with other government policies;
- Insufficiency of resources destined to the public bodies of tourism administration;
- Insufficiency of public resources for works on basic infrastructure;
- Difficulties investigating indicators of environmental sustainability; and
The improved engagement of private sector tourism in environmental issues.

Therefore, the environment is naturally a matter that integrates the methodological scenarios used in socioeconomic research with scientifically produced assessments and/or proposals. Owing to the globalisation tendency of common interest topics, the environment remains under discussion (Goeldner et al., 2000; Zamot et al., 2009).

International scholars, especially those who discuss and organise global public policies, deal with the environment issue as a priority. Similarly, the allocation of the amount of investments and individuals, regulation standards and assessment and control processes, at the global scope, are all relevant to the environment (Plog, 2001; Zamot et al., 2009).

In Brazil, where natural attractions are abundant, destinations may be found that depend directly on segments that have natural attractions as a basis, such as ecotourism, adventure tourism, sun and beaches. It is relevant to emphasise that the surveys of national and international demand performed by the Ministry of Tourism (2004) in its promotion plans (Cores and Aquarela plans), point out the increasing awareness of visitors, mainly foreign ones, in relation to the environmental aspects of the place to be visited.

Irrespective of the specific dependence of environmental issues on these tourism segments, all destinations keep a sustainability bond directly related with the environmental conditions provided to tourists. In other words, among
infrastructure characteristics, environmental status is a main aspect in the choice processes (Cooper et al., 2001; Beni, 2001; Valls, 2006).

The importance of a detailed analysis of the aspects that not only affect tourism directly but also represent a proxy of the quality and environmental responsibility of a destination is stressed. Thus, to assess the competitiveness of destinations in connection with the Environmental aspects dimension, the following variables were examined: (i) effectiveness of the Municipal Environmental Code; (ii) potentially polluting activities; (iii) public water supply network; (iv) public sewage collection and treatment network; (v) availability of public disposal for waste; and (vi) classification of (occasional) preservation areas existing in the city's territory.

1. Municipal environmental code

The Municipal Environmental Code demonstrates a high degree maturity of the destination in relation to the environment and its sustainability. Thus, we identified the existence of this code in these cities, as well as the mechanisms derived thereof, such as (i) environmental licensing; (ii) the municipal environment council or equivalent body; and (iii) the creation or consolidation of preservation areas. Another way to assess the environmental behaviour of the destination was whether bills aimed at creating an environmental municipal code in the city's structure or reserving municipal resources for the environment.
ii. Potentially polluting activities

This variable aims to identify potentially polluting activities in the destination, such as refineries, chemical activities and digging activities. In this same line, evidence of hospitals, health care offices (public or private), public cemeteries and incidences of bodies such as the Forensic Medicine Institute were also investigated.

However, the existence of potentially polluting activities does not by itself reflect negatively for this study, if the activity has licensing and inspection processes and if the achievement of sustainability standards has been accepted by the methodology. Lastly, the survey investigated the water and air quality in the destinations covered in this study.

iii. Public water distribution system

The existence of a public water supply network represents a significant environmental variable for destinations. The public network may treat water, in many cases with elements that reduce the concentration of polluting agents, and always provide a significant mitigating capacity of the prominent factors for possible environmental damage.

In this sense, this variable examined the structuring of the water distribution system in the destination based on the following characteristics: (i) effective operation; (ii) comprehensiveness of the service for the population; (iii) comprehensiveness of the service supply for tourism facilities, such as hotels;
(iv) system property; (v) configuration of the water reservoir or resources in the city's territory; and (vi) structure for the treatment and reuse of water.

Lastly, we determined whether destinations effectively produced periodic campaigns for the rational use of water and whether there was any period of the year in which the rationing was needed, as well as federal programs, such as the Programa de Microbacias (Watershed Program).

iv. Public sewage collection and treatment network

The generation of household sewage is an unavoidable circumstance. Some cities adopt, in their infrastructure system, as well in the local standards and practices, a public collection system. Thus, this variable aimed at surveying aspects related to the sewerage produced in the city.

Therefore, the local sewerage system was examined. In addition to the general structure, the service configuration as a whole (employment of absolute separators), collection fees in water supply bills and placement of treatment units (location and disposal) were verified. Lastly, two aspects were also examined: (i) the level of coverage of the service for the local population and (ii) the municipal practice related to building ditches, filter and sink systems and other mechanisms.

v. Public waste disposal

The generation of waste is unavoidable in any cluster of people or activities. Some waste can be treated or disposed of easily (organic domestic waste, for
instance), while others' treatment involves greater complexity (hospital and chemical waste, for example). The first step to qualify them is laboratory analysis; the second is removal and disposal in a proper location; the third refers to the treatment processes; and the fourth is the posterior disposal (recycling, destruction).

Thus, we take into account local structuring for waste disposal based on three main elements in this variable: (i) nature of local facilities (trash areas, sanitary landfills, composting plants and incinerators, for instance); (ii) levels of capacity for receiving the waste generated by the destination; and (iii) proper licensing of facilities by the competent bodies. Other aspects considered in this variable were the domestic collection system and waste collection organisation.

vi. Preservation areas in the city's territory

Preservation areas are territorially defined spaces that have the main purpose of the preservation and conservation of natural ecosystems. The preservation area in a certain city's territory – knowing beforehand that a single such area may occupy the territory of more than one city – has the capacity to consist of a significant proportion of a tourist destination, which indicates better environmental organisation and protection in that destination.

Along these lines, the existence of the following modalities of preservation units in destinations were surveyed: (i) parks; (ii) environmental protection areas (áreas de proteção ambiental); (iii) areas of relevant ecological interest (áreas de relevante interesse ecológico); (iv) national forests; (v) sustainable development reserves; (vi) extractive reserves; (vii) private reserves of natural
heritage (reservas particulares do patrimônio natural); (viii) ecological plants; (ix) natural sanctuaries; and (x) wildlife refuges. In addition, the elaboration of plans for managing preservation units and the existence of economic activities in territories were also considered.

4.2.5.3 Cultural aspects

From a civic, religious, leisure or professional perspective, culture is the object of public administration, in light of which the moves of a certain collective, population, tribe or nation are studied. Identities, values and tensions are expressed by means of attitudes and conduct and, in some cases, by the "imaginary" presence in behaviours (Pearce, 2001; Yázigi, 2001).

According to Thompson (1998), culture is an intertwined term that gathering so many activities and attributes in only one group may indeed cause confusion and hide distinctions. Even though it is a difficult concept to approach, culture is a constituent of the popular reality, such as a need or an expectation.

The pursuit of cultural products explains individuals' need to confront their origins with the actual time and socioeconomic reality, making cultural tourism more than seeing lifestyles, folklore or art from other cultures, but experiencing a different reality, finding interactions between the past and the present and pointing to future parameters (Yázigi, 2001; Beni, 2001).

Even in the cultural context, tourism is a service that requires the presence of the customer. According to Cooper et al. (2001), this implies the interaction of the local population with an external agent. The result of this relationship tends
to bring benefits to both parties: it generates economic development for the visited region and promotes different experiences for visitors. For instance, visitors have the opportunity to experience situations that may become memorable and that may bring loyalty to tourism.

The cultural factor is relevant for competitiveness in tourism because of its multifunctional characteristics (WEF, 2007, 2008, 2009; Dwyer & Kim, 2003; Crouch & Ritchie, 2003). It functions as an attraction for several niches and contributes to local development. Thus, it is directly included in public management, as it is a product characteristic of Brazilian leisure activities, a generator of employment and a promoter of historical heritage.

Aiming to build a methodology for the composition of this dimension, research has been undertaken in the literature and in bodies directly related to the topic, such as the Brazilian National and Historical Patrimony Institute, Ministry of Culture, UNESCO and the Brazilian Geography and Statistics Institute (IBGE).

It is important to emphasise that measuring the cultural aspects of a destination is tough. Producing an inventory and quantifying the cultural tools will not necessarily reflect the destination's actual situation. Thus, qualitative indicators for the measurement of destination competitiveness in connection with Cultural aspects were also chosen for this study. These were based on the following variables: (i) cultural production associated to tourism; (ii) cultural and historical heritage; and (iii) government aspects.
I. Cultural production associated to tourism

In this variable, the identification of the existence of cultural expressions of the destination and their relationships with its potential and competitiveness was sought. Based on primary and secondary data, aspects related to the occurrence of typical workmanship and cuisine activities and the respective sales spheres (regional, state, national and international) were surveyed. In addition, the existence of popular art groups and their respective knowledge spheres (regional, state, national and international) were investigated.

Another important element considered for the competitiveness assessment was the appreciation of the main local event for tourist attraction. Consequently, effort was made to identify (i) the frequency of its performance; (ii) occasional interactions between visitors and the local population; (iii) planning (whether it estimates the attraction of tourists solely); and (iv) the percentage of tourists attracted to the destination.

In addition, the following were assessed (in these cases based exclusively on primary data): the existence and effectiveness of four types of manifestations, namely (i) evident and typical cultural traditions; (ii) particular commercial habits of the destination; (iii) prominent and evident religious manifestations; and (iv) traditional communities.

Lastly, based mainly on secondary data, a series of cultural appliances was examined, such as (i) open TV channels; (ii) community TVs; (iii) movie rental shops; (iv) clubs and sports associations; (v) bookstores; (vi) cultural centres; (vii) theatres or concert areas; (viii) public libraries; (ix) stadia or gymnasiums;
(x) museums; (xi) movie theatres; (xii) shopping centres; (xiii) centres or rooms used for conventions; (xiv) areas for the rental of locations with tourism purposes; and (xv) cable TVs.

ii. Historical and cultural heritage

In this variable, for assessing the competitiveness of destinations, elements related to material heritage (goods, works, buildings and urban groups, for instance) and non-material heritage (knowledge, processes and rituals) were considered.

Based on a combination of primary and secondary data, the existence, in protected destinations, of the following types of heritage sites were verified: (i) non-material; (ii) artistic; (iii) archaeological sites; and (iv) goods registered as historical heritage. In these four cases, the study also verified the type of protecting organisation (municipal, state, federal or international bodies) and whether they constitute tourist attractions. In the specific case of non-material goods, the structuring of any preservation policies (public, private or semi-public) was observed. In the last instance, the study also verified whether the destination had cultural heritage protected by UNESCO.

iii. Governance aspects

This variable assessed the governance aspects connected with the culture of the destination. First, we identified the municipal structure for the culture administration, i.e., how the structuring takes place and the body responsible for this management (exclusive municipal secretariat or shared with other
matters, sector subordinated to any secretariat or to the executive, public foundation or inexistence of specific structures).

In relation to culture policy in the destination and based on secondary data, we verified the existence of at least one occasional action implemented within the past 24 months for the maintenance of the schedule of traditional parties as well as the adherence to what is called “the National System of Culture” in Brazil.

The study also verified the destination's efficiency in monitoring issues such as local carrying capacity and cultural goods from a public management point of view. Lastly, aspects related to the local law for culture were studied. Thus, we determined the existence of legal mechanisms in the city for promoting cultural activities and correlating public reserves. In addition, we explored whether the city had a cultural tourism implementation project (with respective executing bodies) and whether it produced programs for promoting the use of the local workforce.

4.3 FINAL REMARKS

This chapter presented the model proposed to evaluate the competitiveness of Brazilian tourist destinations and provided theoretical information on the dimensions to be investigated in the research. In this way, 13 dimensions were presented, subdivided into 61 variables that will be used in the model. The indicators proposed will evaluate competitiveness at the local level using a data collection questionnaire. This qualitative information will be backed up by quantitative results.
For the purpose of this thesis, a destination is considered to be a defined geographical region that is understood by its visitors as a unique entity, with a political and legislative framework for tourism marketing and planning.

The literature review showed the need for a model that can better reflect the underdeveloped reality of destinations located in developing countries. Dwyer and Kim (2003) also suggest that none of the current models is entirely satisfactory, as they involve the integration of the objective and subjective attributes of competitiveness. The subjective factors present in previous models, especially in Dwyer and Kim (2003) and Crouch and Ritchie (1995, 1999), are as important as the objective ones. Dwyer and Kim (2003) also suggest that the integration of the objective and subjective attributes of competitiveness is an important issue for future research.

For this reason, the proposed model aims to design an operation that focuses on primary data collection, to transform subjective attributes in an objective way, in order to obtain a reliable evaluation of the competitiveness of tourist destinations. The objective aspects in the assessment of the variables were the main strategy of the research, and subjective factors were used in a residual way using an objective method to assess their relevance. The questionnaire provided a detailed explanation and equalisation of the assessment for all situations.

Different from previous academic and empirical studies that adopt the country as the unit of analysis, this model assumes the city as its unit of analysis based on the data available. It is clear, based on the theoretical reference presented.
(including its gaps and contradictions), that the measurement of competitiveness depends on the variables chosen. Thus, there is room for a new model of the competitiveness of tourist destinations in view of the specificity of the Brazilian reality, which is still considered to be a developing country.
CHAPTER 5

5 METHODOLOGY

5.1 INTRODUCTION

After the literature review and empirical questions regarding the competitiveness of tourism destinations were critically analysed, several definitions were identified in the literature, as well as in previously developed models, to explain the competitiveness of a destination in a developing country. Dwyer and Kim (2003) suggest that these models do not provide a comprehensive treatment of various issues surrounding the notion of competitiveness explored in the wider literature. Thus, they are not entirely satisfactory.

Mazanec et al. (2007) summarise the criticisms related to the methodological and operational questions used to measure the competitiveness of tourist destinations, according to the unit of analysis, the origin of theoretical study, the subjectivity/objectivity dichotomy and the dichotomy in the evaluation criterion, namely performance and efficiency.

Another point to be emphasised is the measurement of competitiveness itself, which relies on the chosen variables, evaluation criteria and unit of analysis. It is noteworthy that many countries and regions must identify the degree of the competitiveness of their major tourist destinations in order to develop specific policies for tourism development. Therefore, there is room for a new model of
the competitiveness of tourist destinations in view of the specificity of the Brazilian reality.

Thus, this thesis proposes to develop a model to measure the competitiveness of tourist cities in particular in developing countries. The model also aims to propose a primary data collection framework in an objective way to building a more reliable evaluation of a competitive tourist destination.

5.2 OBJECTIVES

The rationale for this study was both academic and practical. Specifically, the research was conceived with the dual objectives of meeting the rigours of academic requirements and contributing towards knowledge exchange in order to be recognised and valued by tourism management scholars and practitioners.

The central role of this thesis was to examine different models for measuring the competitiveness of tourist destinations and to develop a model that is applicable to the reality of cities, especially in developing countries. This requires the analysis of the key factors that can affect the competitiveness of a tourism destination (locally), the creation of a measurement system to quantify those factors and the creation of a measurement model that can serve as a tool for management and monitoring results for public and private managers in tourist destinations.

Thus, it can be stated that the main objective of this thesis is:
To propose a model for measuring competitiveness of tourist destinations, applicable to the reality of Brazilian cities and able to serve as a tool for managing and monitoring results for tourism managers.

To achieve the main objective of the thesis the following is necessary:

To identify key elements that influence the competitiveness of a destination at the local level

To determine appropriate primary and secondary indicators to measure the competitiveness of tourism destinations at the local level

To propose an instrument to collect objective information (minimize subjectivity of interpretation), which is feasible (in relation to research time and applicability) and standardized (to measure different realities of destinations)

To propose a well clear-sighted evaluation method weighted according to its variables, facilitating the quantification of qualitative results

To test the applicability of the model in different destinations

To suggest items for future conceptual and empirical research from the study

5.3 RESEARCH FIELD

Tourism is the fifth main product in the generation of foreign exchange earnings in Brazil, creating job opportunities and income at different points in
its territory. The increase in average income and household consumption is also an opportunity to strengthen the domestic tourist market, making it a vector of economic and social development.

In the international tourism market, the actions of dissemination and knowledge on new tourism products in Brazil are consolidating, diversifying and attracting new flows of international tourists across Brazil. Ecotourism and sustainable tourism in Brazil offers a wide range of natural attractions including rivers, forests, springs, beaches and mountains.

The country is ranked among the world leaders in relation to its natural and cultural resources with many sites considered to be World Heritage standard. It also possesses vast natural protected areas and the richest fauna in the world. However, Brazil needs better infrastructure, especially related to access, and public policies that are more favourable to the development of tourism (WEF, 2011).

Until now, advanced economies have been regarded as the model of development in tourism, which should be replicated. However, for emerging destinations, additional or alternative factors may be crucial. It is essential to study emerging destinations in more detail to determine whether specific factors determine their progress in tourism (WEF, 2011).

The option for studies of destinations in Brazil for this research is a result of the fact that the author resides in Brazil and has substantial knowledge on the key issues of interest. Another factor to be considered in the choice of Brazil as the object of analysis is the size and composition of its tourist destinations with
substantial differences in sizes, features, segments and levels of development across regions. This fact makes Brazilian tourist destinations an excellent experimental field for the model in question.

5.4 RESEARCH PHILOSOPHY

Historically, two philosophical research approaches are commonly used in the literature of social research: phenomenology and positivism. Phenomenology is based on the way people experience social phenomena in the world in which they live and seeks to discover why those phenomena occur. According to Remenyi (1998), the objective of phenomenology is to study the details of the situation in order to understand its reality. Thus, research not only includes "that which is occurring" but also "why it is occurring". To that end, phenomenologists analyse the ordering of social reality and explain how the usage of certain forms of knowledge contributes to that ordering. Researchers with a phenomenological approach use qualitative data collection and analysis techniques (Denzin & Lincoln, 1998; Panagiotou, 2004).

Researchers with a positivistic approach, by contrast, assume an objective world and have a preference for "working with an observable social reality, and that the end product of such research can be law like generalizations similar to those produced by the physical and natural scientists" (Remenyi 1998:32). The researcher, in this case, assumes the role of an objective analyst making detached interpretations about the data collected in an apparently value-free manner (Saunders et al., 2000). To that end, there is an emphasis on a highly structured methodology to facilitate replication (Gil & Johnson, 1997)
and quantifiable observations that lend themselves to statistical analysis. Research with a positivist approach commonly uses quantitative data collection and analysis techniques.

Panagiotou (2004) argues that it would be a mistake to consider one technique better than another. Saunders et al. (2000:86) defend that “they are better at doing different things depending upon the research question(s)”.

Positivism is associated with the deductive method, when first a theory and hypothesis is developed to draw up a research strategy and then test the hypothesis. An important feature of the deductive method is that of explaining chance occurrences among the variables studied. By contrast, phenomenology is associated with the inductive method, by which the data are collected first and only then is the theory developed through the analysis of the data.

Nevertheless, the combination of the induction and deduction methods is accepted by many social researchers as being the best way of conducting research (Panagiotou, 2004). According to Saunders et al. (2000:90), “not only is it possible to combine approaches within the same piece of work but, it is often advantageous to do so”.

It is worthwhile pointing out that behind all these social research methods are the basic assumptions of the author, i.e. his or her way of seeing the world. This is supported by Robson (2003) who argues that the research method to be chosen must take into consideration not only the nature of the phenomenon to be explored, but also the philosophical standing of the researcher, which helps determine areas of interest.
According to Collican (1999), mainstream psychological research tends to favour the positivist approach, which means that theory is evaluated by generating and testing related hypotheses. In other words, a hypothesis is a statement of exactly what should be the case if a certain theory is true. However, the latter is mostly appropriate for universal claims that produce law-like generalisations.

Qualitative and quantitative research can be seen as representing two paradigms, each historically assuming different epistemologies. Academic debate has suggested that "qualitative/quantitative" terms represent a paradigm clash (Panagiotou, 2004). However, these methods and techniques are compatible. Similarly, according to Vieira and Zouain (2004), qualitative and quantitative approaches must not be seen as competing, but as complementary.

According to Babbie (1999), the examination of a determined social phenomenon is frequently more successful when using several methods. Thus, we can consider the present study to be a positivist research study given that it interprets the objectives and propositions through exempt interpretations related to the data collected. Positivism is associated with the deductive method, and the important feature of the deductive method is explaining chance events among the variables studied.

As regards this, the present research attempted to avoid the false dichotomy between qualitative and quantitative research, bearing in mind that it is difficult to classify a method as qualitative or quantitative, given that qualitative information can be quantified and quantitative information can be interpreted.
The research will be qualitative in that it allows a phenomenon to be observed fully, besides facilitating the exploration of contradictions and paradoxes. It is quantitative in that it ensures objectivity, the possibility of causal relationships and the possibility of generalising (Vieira & Zouain, 2004). Thus, the two approaches complement each other.

5.5 RESEARCH STRATEGY

Prior to any large-scale study, particularly in a relatively unknown context such as competitiveness in tourism destinations, it is strongly recommended that exploratory research is initially conducted (Schoefer, 2002). The main purpose is to understand the vocabulary and language used by respondents as well as to gain insights into their levels of competitiveness.

It is believed that the findings of such exploratory research can provide invaluable input into qualitative research in terms of the line and tone of questioning as well as the overall structure and content of the quantitative levels.

5.5.1 Semi-structured Interviews

After reviewing the literature on destination competitiveness, the researcher first proposed using exploratory interviews to examine the relevance of the proposed conceptual model of destination competitiveness. In particular, a series of semi-structured interviews were conducted with a convenience sample in order to explore the pertinent aspects of competitiveness, strategy and
destination development in the Brazilian case. Table 4 lists the specialists interviewed. These experts were selected according to the following criteria:

- More than 10 years experience with development projects in tourist destinations in Brazil;
- Participation in education and research projects on tourism in Brazil;
- Knowledge on the subject competitiveness of countries;
- Public managers with experience in tourism planning.

In order to facilitate the interviews, respondents were divided into their areas of expertise and asked to describe their understanding of each of the 13 dimensions of destination competitiveness (i) General Infrastructure, (ii) Access, (iii) Tourism Infrastructure, (iv) Tourism Attractiveness, (v) Marketing and Destination Promotion, (vi) Public Policies, (vii) Regional Cooperation (viii) Monitoring And Research (ix) Economic Activities (x) Business Capacity, (xi) Social Aspects, (xii) Environmental Aspects and (xiii) Cultural Aspects.

Table 4: Panel of specialists 1

<table>
<thead>
<tr>
<th>Specialist</th>
<th>Description</th>
<th>Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Moisés Balassiano</td>
<td>General Infrastructure</td>
<td>PHD/Professor, Getulio Vargas Foundation</td>
</tr>
<tr>
<td>2. Guilherme Lohmann</td>
<td>Access</td>
<td>PHD/Professor Southern Cross University, (Australia)</td>
</tr>
<tr>
<td>3. Saulo Barroso Rocha</td>
<td>Tourism Infrastructure</td>
<td>PHD/Professor, Fluminense Federal University (Brazil)</td>
</tr>
<tr>
<td>Specialist</td>
<td>Description</td>
<td>Title/Position</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>4. Eduardo Sanoves</td>
<td>Tourism Attractiveness</td>
<td>PHD/President of Embratur (Brazilian Tourist Authority)</td>
</tr>
<tr>
<td>5. Joseph Chias</td>
<td>Marketing and Destination Promotion</td>
<td>Consultant/Chias Marketing Barcelona</td>
</tr>
<tr>
<td>6. Airton Pereira</td>
<td>Public Policies</td>
<td>General Secretary of Tourism Police Brazilian Ministry of Tourism</td>
</tr>
<tr>
<td>7. Ana Clévia Guerreiro Lima</td>
<td>Regional Cooperation</td>
<td>Msc/General Coordinator of Regionalisation - Ministry of Tourism</td>
</tr>
<tr>
<td>8. Jose Francisco de Salles Lopes</td>
<td>Monitoring and Research</td>
<td>Director of Research – Brazilian Ministry of Tourism</td>
</tr>
<tr>
<td>9. Dival Shmidt Filho</td>
<td>Economic Activities</td>
<td>Msc/Professor, Universidade de Brasilia and Chief of Tourism SEBRAE (Brazilian Micro and Small Business Support Service)</td>
</tr>
<tr>
<td>10. Joaquim Rubens Fontes Filho</td>
<td>Business Capacity</td>
<td>PHD/Professor, FGV</td>
</tr>
<tr>
<td>11. Fernando G. Tenório</td>
<td>Social Aspects</td>
<td>PHD/Professor, FGV</td>
</tr>
<tr>
<td>12. Maureen Flores</td>
<td>Environmental Aspects</td>
<td>Sustainability Manager, Brazilian Olympic Authority</td>
</tr>
<tr>
<td>13. Regina Cavalcanti</td>
<td>Cultural Aspects</td>
<td>Director of Culture, Brazilian Ministry of Tourism</td>
</tr>
</tbody>
</table>

5.5.2 Survey Instrument

According to Robson (2003), the method by which data are collected in any study should be determined by the research objectives. However, this is the ideal situation, and researchers often have to use methods that are in fact feasible rather than ideal.

Questionnaires are a measurement instrument, but as suggested above, they are only relevant when certain types of data are being collected. They are much more appropriate when quantitative data are being collected, as this instrument restricts the length of respondents’ responses and does not allow the respondent
to discuss certain areas in detail. In this light, if quantitative data are being collected, a questionnaire offers an ideal means of acquiring them in a form that allows for easier analysis (Schoefer, 2002)

Another decision in survey research is whether a cross-sectional or longitudinal design should be used. Cross-sectional studies investigate a sample of elements selected from a population of interest, which are measured at a single point in time, whereas longitudinal studies involve a fixed sample of elements that is measured repeatedly through time. Since the primary objective of this study was to measure the key dimensions and variables that influence the competitiveness of a tourism destination, a cross-sectional approach is more appropriate. Other constraints, such as time and financial resources, also support the selection of a cross-sectional design. However, in future research, a longitudinal design would be interesting to measure the rate of competitiveness, such as the number of years needed to attain each level of competitiveness for different dimensions.

5.5.3 Questionnaire Structure

For this research, a standardised questionnaire was applied with items measured in an objective way (see Appendix A). The dimensions were expressed by variables. Such variables had objective questions presented according to a dichotomised answer (yes or no), multiple choices, or with objective responses such as numbers and figures. The objective aspects in the assessment of the variables were the main strategy of the research, and
qualitative indicators were used in a residual way. The questionnaire provided a detailed explanation and equalisation of the assessment for all situations.

The questionnaire contained 600 questions categorised into the primary data to be collected through interviews with respondents or by observation on site, as in the following examples. The whole questionnaire is in Appendix A.

- **Example 1**

  Are there special areas, WITHIN THE TOURIST AREAS, for the embarking and disembarking of tourist vehicles? (Source: Public Works and Infrastructure Secretariat, observation)

  - No
  - Yes

  Question Note: Consider only areas duly marked with road signs. Consider tourist vehicles that regularly transport passengers between the principal tourist sites, such as buses, vans and minivans specifically used by guides and agencies for transporting tourists.

- **Example 2**

  Indicate the infrastructure that exists at the airport and say if it is adequate considering the flow of passengers. (Source: observation)
## Table 5: Example 2 (multiple answers)

<table>
<thead>
<tr>
<th></th>
<th>a. Exists</th>
<th>b. Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6.01</td>
<td>☐ Tourist Information (1)</td>
<td></td>
</tr>
<tr>
<td>1.6.02</td>
<td>☐ Shops</td>
<td></td>
</tr>
<tr>
<td>1.6.03</td>
<td>☐ Restaurants and snack bars</td>
<td></td>
</tr>
<tr>
<td>1.6.04</td>
<td>☐ Vehicle rentals</td>
<td></td>
</tr>
<tr>
<td>1.6.05</td>
<td>☐ Taxi service</td>
<td></td>
</tr>
<tr>
<td>1.6.06</td>
<td>☐ Bank service (branch/ ATMs)</td>
<td></td>
</tr>
<tr>
<td>1.6.07</td>
<td>☐ Exchange service</td>
<td></td>
</tr>
<tr>
<td>1.6.08</td>
<td>☐ Comfort: seats, illumination, silence, cleanliness, etc.</td>
<td></td>
</tr>
<tr>
<td>1.6.09</td>
<td>☐ Bathrooms: cleanliness, conservation</td>
<td></td>
</tr>
<tr>
<td>1.6.10</td>
<td>☐ Landing strip pavement</td>
<td></td>
</tr>
<tr>
<td>1.6.11</td>
<td>☐ Landing and take-off lighting</td>
<td></td>
</tr>
<tr>
<td>1.6.12</td>
<td>☐ Facilities for physically impaired people</td>
<td></td>
</tr>
<tr>
<td>1.6.13</td>
<td>☐ Ombudsman service (ANAC)</td>
<td></td>
</tr>
<tr>
<td>1.6.14</td>
<td>☐ INFRAERO (airport management)</td>
<td></td>
</tr>
<tr>
<td>1.6.15</td>
<td>☐ Indoor signs in foreign languages</td>
<td></td>
</tr>
<tr>
<td>1.6.16</td>
<td>☐ Medical department</td>
<td></td>
</tr>
</tbody>
</table>

**Question Note:** The option ADEQUATE should only be marked if EXISTS is marked. Mark EXISTS for option 1.6.12 if there is infrastructure for physical, visual or hearing impaired people that meets the needs of at least one of these three groups. For example, in the case of physical impairment, there must be ramps, adapted bathrooms and elevators. Having ramps alone is not enough. Consider this aspect to be adequate when there are, for example, enough ramps. Examples of requirements for accessibility include internal and external access ramps, voice-activated commands in elevators, stair lifts, tactile flooring and paving, doors and access ways with audio signs, adapted bathrooms, audio and visual guides in Brazilian sign language etc.

- **Example 3**

What areas are available for events in the destination? (Source: Department of Tourism, Convention Bureaux)
Table 6: Example 3 (multiple answers)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>0 Convention centres</td>
</tr>
<tr>
<td>b.</td>
<td>0 Convention centres</td>
</tr>
<tr>
<td>c.</td>
<td>0 Multifunctional space or modular rooms</td>
</tr>
<tr>
<td>d.</td>
<td>0 Pavilions and/ or fairs and/ or exposition centres</td>
</tr>
<tr>
<td>e.</td>
<td>0 Hotel auditoria with small to medium capacity</td>
</tr>
<tr>
<td>f.</td>
<td>0 Hotel auditoria with large capacity</td>
</tr>
<tr>
<td>g.</td>
<td>Other. What?</td>
</tr>
</tbody>
</table>

Question Notes: Do not consider convention centres among options for large capacity structures. Convention centre – space with modular areas with no outdoor pavilions, which can be administered by public or private entities. Multifunctional and modular rooms can be located in hotels (rooms with the capacity to host various types of events), in business centres or in independent areas (for rent) whose installations permit flexible structural arrangements and which have basic utilities (electricity, bathrooms, kitchen etc.). Pavilions for fairs and exposition centres – sheltered spaces or outdoor areas with support structures (in general on a single floor with no air conditioning) which permit the setting up of stands or rooms, with or without rooms for events. Rooms in hotels for events – rooms with fixed structures (not modular) for events (meetings, briefings, workshops, speeches and expositions, among others), without necessarily having other additional structures. Size: small capacity of up to 300 people; a medium capacity of between 300 to 1000 people and large scale with a capacity of more than 1000 people.

There was also secondary data, when available at the national level, to classify the competitiveness of each variable.
### Example 4

Table 7: Example 4

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>Tourism Services and Equipment</th>
<th>Tourism Services and Equipment</th>
<th>Tourism Services and Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>VARIABLE</td>
<td>Capacity of Lodging</td>
<td>Capacity of Reception Tourism</td>
<td>Capacity of Restaurants</td>
</tr>
<tr>
<td>QUESTION NUMBER</td>
<td>7.a</td>
<td>22</td>
<td>26.a</td>
</tr>
<tr>
<td>QUESTION</td>
<td>* How many lodging facilities are in the destination?</td>
<td>Are there guides in the destination who are registered with the Ministry of Tourism?</td>
<td>** How many restaurants are in operation in the destination?</td>
</tr>
<tr>
<td>SECONDARY DATA SOURCE</td>
<td>RAIS 2009</td>
<td>Ministry of Tourism</td>
<td>RAIS 2009</td>
</tr>
<tr>
<td>DATA COLLECTION YEAR</td>
<td>2009</td>
<td>2009</td>
<td>2009</td>
</tr>
<tr>
<td>DATA COLLECTION ADDRESS</td>
<td>Programa Rais</td>
<td>Cadastur</td>
<td>Programa Rais</td>
</tr>
</tbody>
</table>

* Used as proxy of lodging facilities; ** as a proxy of restaurants facilities.

### Example 5

Table 8: Example 5

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>Local Economy</th>
<th>Local Economy</th>
<th>Local Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>VARIABLE</td>
<td>Aspects of the local economy</td>
<td>Aspects of the local economy</td>
<td>Aspects of the local economy</td>
</tr>
<tr>
<td>QUESTION NUMBER</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>QUESTION</td>
<td>What was the GDP of the destination?</td>
<td>What was the GDP per capita of the destination</td>
<td>What was the goods and services tax collected in the destination?</td>
</tr>
<tr>
<td>SECONDARY DATA SOURCE</td>
<td>IBGE - Cities</td>
<td>IBGE - Cities</td>
<td>Finbra (ISSQN)</td>
</tr>
<tr>
<td>DATA COLLECTION YEAR</td>
<td>2007</td>
<td>2007</td>
<td>2009</td>
</tr>
</tbody>
</table>
• Example 6

Table 9: Example 6

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>Social Aspects</th>
<th>Social Aspects</th>
<th>Social Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>VARIABLE</td>
<td>Access to education</td>
<td>Access to education</td>
<td>Access to education</td>
</tr>
<tr>
<td>QUESTION NUMBER</td>
<td>2</td>
<td>3.a</td>
<td>3.b</td>
</tr>
<tr>
<td>QUESTION</td>
<td>* What is the educational development situation for the local workforce (adults above 25 years)?</td>
<td>What is the percentage of children between ages 4 and 5 in school?</td>
<td>What is the percentage of children between ages 5 and 6 in school?</td>
</tr>
</tbody>
</table>

* Used as proxy numbers of adults with access to education.

5.5.4 Field Test (Pilot test)

Given that this is a customised model for the Brazilian case in competitiveness evaluation using field research, it was necessary to carry out experimental studies with the first version of the survey instrument in order to examine the ideal number of dimensions, variables and questions to be used.

Before the fieldwork, two destinations were chosen to serve as pilot units to test the data collection instrument: the city Rio de Janeiro, in the State of Rio de Janeiro, and Jijoca de Jericoacoara, in the State of Ceara. Destinations were selected according to their regional characteristics, size in terms of economy and population and priority tourism segments.
Table 10: Field test

<table>
<thead>
<tr>
<th></th>
<th>Rio de Janeiro</th>
<th>Jijoca de Jericoacoara</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population*</td>
<td>6,323,037</td>
<td>17,002</td>
</tr>
<tr>
<td>GDP at current prices (R$ million)**</td>
<td>154,777,301</td>
<td>57,720</td>
</tr>
<tr>
<td>Companies with over 1000 employees***</td>
<td>197</td>
<td>0</td>
</tr>
<tr>
<td>Hotels***</td>
<td>533</td>
<td>54</td>
</tr>
<tr>
<td>Priority tourism segments</td>
<td>Business and events</td>
<td>Sun and beach</td>
</tr>
</tbody>
</table>

* 2010 Census  ** Source: IBGE: 2008  *** Source: RAIS 2009

This pilot analysis had as its goal the preparation of the survey in the other 13 destinations, verifying questions such as the appropriateness of the methodology, collection time and other organisational aspects of the survey, such as agendas for interviews, data collecting time and survey organisation.

5.6 MAIN SURVEY

In this section, all the major aspects of the methodology of the main survey are addressed. This includes the decisions relating to the research design, questionnaire construction, measures and sampling and distribution procedures.

Competitiveness in the tourism sector, which has a complex theoretical construction, requires a clear definition in order to facilitate the construction of this model. Owing to these assumptions and the theoretical/conceptual notions presented in previous sections, competitiveness is defined as the increasing capacity of generating business in the economic activities related to the tourism sector, in a sustainable manner, providing the tourist with a positive experience.
For the application of this concept, the model was divided into five macro-dimensions, subdivided, in turn, into 13 dimensions. These dimensions were subdivided into 61 variables composed of indicators that may be extracted directly from reality and secondary data. Figure 11 presents the structure of the model.

**Figure 11: Macro-dimensions and dimensions**

![Diagram of macro-dimensions and dimensions](image)

5.6.1 Scores and Formulas

The definition of each macro-dimension and their respective dimensions, as well as the variables and questions that comprise them, allowed us to produce score criteria. This procedure was validated with experts in each one of the dimensions and, afterwards, validated in a meeting with representatives of the Ministry of Tourism and the private sector. Thus, for the competitiveness
assessment of each tourist destination a score, or weight, for each question, variable and dimension was attributed, taking into consideration the respective contributions to the global competitiveness index.

Each variable was defined in order to capture the overall comprehensiveness of the real meaning of the dimension it is part of. Thus, the score in each dimension was assessed as per the following calculation:

\[
\delta_i = \sum_{j=1}^{J} \left( \sum_{m=1}^{M} \left( x_{jm} + \left( \sum_{m=1}^{M} z_{mj} \right) l_{ij} \right) \omega_{jm} \right) \omega_{ji}
\]

where:

\( Z_m = \) total score of subquestion \( m \). \( m = 1, 2, \ldots, M \)

\( X_k = \) total score of question \( k \). \( k = 1, 2, \ldots, K \)

\( I = 1 \) if question \( k \) has subquestions; \( 0 \), if the opposite takes place.

\( \omega_j = \) weight attributed to variable \( j \)

\( \omega_k = \) weight attributed to question \( k \)

This procedure allowed for identifying the relative positioning of each destination in each of the 13 dimensions.

Per destination:
Final score = \[\sum_{i=1}^{11} \left( \sum_{j=1}^{j} \left( \sum_{k=1}^{K} x_{ijkl} + \left( \sum_{m=1}^{M} z_{mijkl} \right) \omega_{yij}^{\prime} \right) \right) \omega_{i} \]

where \(\omega\) = weight attributed to dimension \(i\)

The set of weights used in measurement of the dimensions was discussed and validated with a specialist panel. This panel comprised technicians from the Ministry of Tourism, the State Tourism Secretariats, SEBRAE and representatives of class entities and professionals in the sector as well as the academic researchers involved in this index building. The list of participants is presented in table 10.1:

<table>
<thead>
<tr>
<th>Expert</th>
<th>Institution position</th>
<th>Origin of expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alan Baldacci</td>
<td>Integrated Parks and Tourist Attractions (SINDEPAT)</td>
<td>Tourist trade</td>
</tr>
<tr>
<td>Alexandre Zubaran</td>
<td>Resorts Brasil</td>
<td>Tourist trade</td>
</tr>
<tr>
<td>Allan Milhomens</td>
<td>Ministry of Environment</td>
<td>Public manager</td>
</tr>
<tr>
<td>Alvaro Brito de Mello</td>
<td>Brazilian Association of Hotels (ABIH)</td>
<td>Tourist trade</td>
</tr>
<tr>
<td>Antonio Henrique</td>
<td>National Commercial Training Service (SENAC)</td>
<td>Job training agency</td>
</tr>
<tr>
<td>Cassiano Marques</td>
<td>Secretary of Tourism of Acre State</td>
<td>Public manager</td>
</tr>
<tr>
<td>Daniela Bitencourt</td>
<td>Marca Brasil Institute (IMB)</td>
<td>Marketing agency</td>
</tr>
<tr>
<td>Érica Campos Drumond</td>
<td>Secretary of Tourism of Minas Gerais State</td>
<td>Public manager</td>
</tr>
<tr>
<td>Evaldo Gonçalo</td>
<td>Ministry of Tourism</td>
<td>Public manager</td>
</tr>
<tr>
<td>João Luiz Moreira</td>
<td>Federation of Convention &amp; Visitors</td>
<td>Tourist trade</td>
</tr>
<tr>
<td>Name</td>
<td>Organization</td>
<td>Position</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>José Eduardo Barbosa</td>
<td>Brazilian Association of Tourism Operators</td>
<td>Tourist trade</td>
</tr>
<tr>
<td>Luzia Neide Coriolano</td>
<td>Ceará State University (UECE/CE)</td>
<td>Scientific academy</td>
</tr>
<tr>
<td>Nílde Clara de Souza Benites Brun.</td>
<td>Foundation of Tourism of Mato Grosso do Sul State</td>
<td>Public manager</td>
</tr>
<tr>
<td>Norma Moesch</td>
<td>Rio Grande do Sul Catholic University (PUC/RS)</td>
<td>Scientific academy</td>
</tr>
<tr>
<td>Núbia David Macedo</td>
<td>Excellence in Tourism Center of Brasilia University (CET/UNB)</td>
<td>Scientific academy</td>
</tr>
<tr>
<td>Osterne Feitosa</td>
<td>National Forum of State Secretaries and Managers of Tourism (FORNATUR)</td>
<td>Public manager</td>
</tr>
<tr>
<td>Paulo Solmucci Júnior</td>
<td>Brazilian Association of Bars and Restaurants</td>
<td>Tourist trade</td>
</tr>
<tr>
<td>Ricardo Guedes</td>
<td>Brazilian Service of Support for Micro and Small Enterprises (SEBRAE)</td>
<td>Entrepreneurs consulting and training agency</td>
</tr>
<tr>
<td>Tânia Omena</td>
<td>Brazilian Association of Graduates in Tourism Professionals (ABBTUR)</td>
<td>Scientific academy</td>
</tr>
<tr>
<td>Valdir Rubens Walendowsky</td>
<td>Santa Catarina State Tourism (SANTUR)</td>
<td>Public manager</td>
</tr>
<tr>
<td>Virginio Loureiro</td>
<td>Secretary of Tourism of Alagoas State</td>
<td>Public manager</td>
</tr>
</tbody>
</table>
The panel took place in Rio de Janeiro, at the Getulio Vargas Foundation, and lasted four hours. At this event, technicians were asked to assess the importance of each dimension. The values for the 13 dimensions had to sum to 100 points. In the same line, technicians were asked to rate the importance of each variable within each dimension.
Figure 12: Competitiveness study

<table>
<thead>
<tr>
<th>Competitiveness Study</th>
<th>General Infrastructure Weight: 13%</th>
<th>Medical Care Capacity of Destination Weight: 12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Assets Weight: 6%</td>
<td>Power Generation Weight: 3%</td>
<td>Antalya Access 1 Weight: 7%</td>
</tr>
<tr>
<td>Cultural Production Associated with Tourism Weight: 2%</td>
<td>Sewerage and Sewage Collection and Treatment Weight: 1%</td>
<td>Antalya Access 2 Weight: 5%</td>
</tr>
<tr>
<td>Municipal Environmental Structure and Legislation Weight: 0%</td>
<td>Public Waste Collection and Disposal Weight: 1%</td>
<td>Terrestrial Access Weight: 10%</td>
</tr>
<tr>
<td>Educational and Cultural Heritage Weight: 10%</td>
<td>Conservation Units Within Municipal Weight: 1%</td>
<td>Waterway Access Weight: 11%</td>
</tr>
<tr>
<td>Municipal Environmental Structure and Legislation Weight: 9%</td>
<td>Access to Education Weight: 12%</td>
<td>Railway Access Weight: 12%</td>
</tr>
<tr>
<td>Public Water Distribution Network Weight: 11%</td>
<td>Jobs Created by Tourism Weight: 10%</td>
<td>Transport System in Destination Weight: 11%</td>
</tr>
<tr>
<td>Public Drainage and Sewage Collection and Treatment Weight: 20%</td>
<td>Policies on Housing with and Prevention of Child and Teenage Sexual Exploitation Weight: 20%</td>
<td>Precocity in Big Points of Origin of Tourism Weight: 10%</td>
</tr>
<tr>
<td>Public Waste Collection and Disposal Weight: 20%</td>
<td>Tourism Service and Equipment Weight: 9%</td>
<td>Tourism Signalling and Orientation Weight: 5%</td>
</tr>
<tr>
<td>Conservation Units Within Municipal Weight: 7%</td>
<td>Social Assets Weight: 10%</td>
<td>Tourism Information Centres Weight: 2%</td>
</tr>
<tr>
<td>Access to Education Weight: 12%</td>
<td>Tourism Attributes Weight: 14%</td>
<td>Areas of Events Weight: 11%</td>
</tr>
<tr>
<td>Jobs Created by Tourism Weight: 10%</td>
<td>Business Capacity Weight: 12%</td>
<td>Capacity of Accommodation Facilities Weight: 9%</td>
</tr>
<tr>
<td>Policies on Housing with and Prevention of Child and Teenage Sexual Exploitation Weight: 20%</td>
<td>Tourism Attributes Weight: 14%</td>
<td>Capacity of Restaurant Tour Operators Weight: 15%</td>
</tr>
<tr>
<td>Use of Tourism Attractions and Equipment by the Population Weight: 11%</td>
<td>Tourism Attractions Weight: 9%</td>
<td>Tourism Destinations Structure Weight: 26%</td>
</tr>
<tr>
<td>Citizenship, Awareness and Participation in Tourism Activities Weight: 20%</td>
<td>Marketing Weight: 15%</td>
<td>Restaurant Capacity Weight: 9%</td>
</tr>
<tr>
<td>Qualification and Training of Local Management Weight: 10%</td>
<td>Marketing Plan Weight: 40%</td>
<td>Natural Attractions Weight: 6%</td>
</tr>
<tr>
<td>Presence of National or International Tourism Sector Representatives Weight: 50%</td>
<td>Participation in Fairs and Events Weight: 28%</td>
<td>Cultural Attractions Weight: 10%</td>
</tr>
<tr>
<td>Competence and Oberation Weight: 10%</td>
<td>Destination Promotion Weight: 8%</td>
<td>Programmed Events Weight: 10%</td>
</tr>
<tr>
<td>Presence of Large Businesses, Branches or Subsidiaries Weight: 20%</td>
<td>Destinations Website on the Internet (website) Weight: 20%</td>
<td>Technical, Scientific or Artistic Events Weight: 10%</td>
</tr>
<tr>
<td>Aspects of the Local Economy Weight: 10%</td>
<td>Municipal structure for Tourism Support Weight: 10%</td>
<td>Marketing Plan Weight: 40%</td>
</tr>
<tr>
<td>Communications Infrastructure Weight: 10%</td>
<td>Degree of Cooperation with Tourism Weight: 11%</td>
<td>Regional Cooperation Projects Weight: 11%</td>
</tr>
<tr>
<td>Business Infrastructure and Facilities Weight: 10%</td>
<td>Degree of Cooperation with Federal Government Weight: 4%</td>
<td>Regional Tourism Planning Weight: 11%</td>
</tr>
<tr>
<td>Population Events or Festivals Weight: 10%</td>
<td>Plan for the City and Tourism Activities Weight: 13%</td>
<td>Regional Partnership Weight: 11%</td>
</tr>
<tr>
<td>Demand Research Weight: 1%</td>
<td>Degree of Public/Private Sector Cooperation Weight: 11%</td>
<td>Promotion and Support for Integrated Commercialization Weight: 11%</td>
</tr>
</tbody>
</table>
5.6.2 Data Collection

The questionnaire consisted solely of objective questions, excluding the interviewer from expressing any judgments. Data collection was performed between April and October 2009. In all destinations, the researchers relied on the constant presence of Municipal Tourism Secretariat personnel as well as of the respective state tourism body.

As interviewees, the representatives of other municipal secretariats, partner members of the city government, (SEBRAE and the National Service of Commercial Learning) also participated in the process of data obtainment. Likewise, professionals from educational institutions and representatives from hotels, restaurants, respective agencies and travel agency sectors were involved (see the list of personnel interviewed in Appendix B). Additionally, persons in charge of the chamber of commerce and the regional integration of tourism were also invited.

For the fieldwork in this research, three researchers received 20 hours of in-class training on the concepts employed by the study in each dimension, the main field difficulties and the strategies for checking the data. Data collected on location in the 13 target destinations were previously defined as per the tables below. Destinations were chosen for their different characteristics (see Table 11) in order to test the proposed model. Each piece of field research took five days in each destination for data collecting.
Table 11 summarises the socioeconomic characteristics of destinations. The objective of this table is to show the diversity and economic magnitude found in Brazilian tourist destinations. These destinations were chosen for the following reasons:

(i) To cover all five geographical regions in Brazil;

(ii) To include different tourist attractions (priority tourism segments);

(iii) To vary in terms of the size of economy and population;

(iv) To have accessible local government managers;

(v) To be considered by the Ministry of Tourism as priorities for tourism development in their respective regions.

Table 11: Data collection cities (sample)

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>GDP at current prices (RS million)</th>
<th>Companies with over 1000 employees</th>
<th>Hotels</th>
<th>IDH (2000)</th>
<th>Priority tourism segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angra dos Reis</td>
<td>169,270</td>
<td>5.112</td>
<td>4</td>
<td>160</td>
<td>0.772</td>
<td>Sun and beach/Nautical</td>
</tr>
<tr>
<td>Bonito</td>
<td>14,851</td>
<td>194</td>
<td>0</td>
<td>54</td>
<td>0.77</td>
<td>Ecotourism</td>
</tr>
<tr>
<td>Caldas Novas</td>
<td>70,463</td>
<td>694</td>
<td>1</td>
<td>69</td>
<td>0.802</td>
<td>Sun and beach</td>
</tr>
<tr>
<td>Fernando de Noronha</td>
<td>2,629</td>
<td>23</td>
<td>0</td>
<td>66</td>
<td>0.862</td>
<td>Sun and beach/ Ecotourism</td>
</tr>
<tr>
<td>Florianópolis</td>
<td>421,203</td>
<td>8,121</td>
<td>27</td>
<td>303</td>
<td>0.875</td>
<td>Sun and beach</td>
</tr>
<tr>
<td>Gramado</td>
<td>32,300</td>
<td>490</td>
<td>1</td>
<td>123</td>
<td>0.841</td>
<td>Cultural tourism/Business and events</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>GDP at current prices (RS million)</td>
<td>Companies with over 1000 employees</td>
<td>Hotels</td>
<td>IDH (2000)</td>
<td>Priority tourism segments</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
<td>-----------------------------------</td>
<td>-----------------------------------</td>
<td>--------</td>
<td>------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Jijoca de</td>
<td>17,002</td>
<td>58</td>
<td>0</td>
<td>62</td>
<td>0,623</td>
<td>Sun and beach/Adventure</td>
</tr>
<tr>
<td>Jericoacoara</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manaus</td>
<td>1,802,525</td>
<td>38,116</td>
<td>57</td>
<td>162</td>
<td>0,774</td>
<td>Ecotourism /Business and events</td>
</tr>
<tr>
<td>Parintins</td>
<td>102,066</td>
<td>406</td>
<td>1</td>
<td>12</td>
<td>0,696</td>
<td>Cultural tourism / Ecotourism</td>
</tr>
<tr>
<td>Porto Alegre</td>
<td>1,409,939</td>
<td>36,775</td>
<td>61</td>
<td>269</td>
<td>0,865</td>
<td>Business and events</td>
</tr>
<tr>
<td>Recife</td>
<td>1,536,934</td>
<td>22,452</td>
<td>61</td>
<td>191</td>
<td>0,797</td>
<td>Sun and Beach /Business and events</td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>6,323,037</td>
<td>154,777</td>
<td>205</td>
<td>514</td>
<td>0,842</td>
<td>Sun and Beach /Business and events</td>
</tr>
<tr>
<td>Salvador</td>
<td>2,676,606</td>
<td>29,668</td>
<td>78</td>
<td>401</td>
<td>0,791</td>
<td>Sun and Beach /Business and events</td>
</tr>
<tr>
<td>São Joaquim</td>
<td>24,812</td>
<td>279</td>
<td>0</td>
<td>12</td>
<td>0,766</td>
<td>Rural tourism</td>
</tr>
<tr>
<td>Tiradentes</td>
<td>7,002</td>
<td>65</td>
<td>0</td>
<td>69</td>
<td>0,773</td>
<td>Cultural tourism</td>
</tr>
</tbody>
</table>

In addition to the data collected in the field, the model comprised several other variables drawing upon the data available from official sources of recognised credit. This information served both to supplement the model database and to deal with variables that demanded treatment in a comparative framework, i.e., the need to be balanced in relation to size, public budgets or population in the destinations surveyed, for the purpose of comparability between them.

All primary and secondary data were registered in paper questionnaire (Appendix A) for further transfer into excel worksheet. A group of macros were prepared to run the data according to the formula previous presented.
5.6.3 Data Analysis

For data analysis, we built a system into which data were inserted and immediately tabulated; their respective cities, dimensions of analysis and variables were then scored. This system was provided with the relative weights for each variable and dimension, in a parametric way, thus allowing the generated results to automatically consider such factors. In addition, this parameterisation facilitated posterior analyses, extending the relative size, segmentation or geographical location of the destination assessment.

Additionally, quantitative analyses of data and consistency tests were performed by means of a specific statistics program (SPSS). This program was also used for other statistic treatments in order to facilitate the comprehension of the destinations studied. Descriptive statistics and frequency tables were produced and comparisons between variables drawn.

It is also important to point out the methodological aspects used to treat missing data. In order to avoid the situation where all the information associated with a question was ruled out, two treatments were followed. In the access dimension, when the destination did not have one type of access, the points considered in this factor were redistributed to others. For example, Fernando de Noronha, as an island, does not have terrestrial or railway access; therefore, the relational points scored by this type of access were redistributed to waterway and aerial access. In other situations, the information included was the average of the cluster of similar cities, pursuant to population size, the state
of government and the geographical region. This information was processed in a statistical program and replaced in the competitiveness analysis system.

5.6.4 Limitations of the Method

The option to develop a positivist line of research entails some methodological restrictions assumed in this study. The key limitations are discussed below.

The measurement model for competitiveness proposed was conceived to capture, in the most accurate possible manner, the reality of destinations. However, this situation is complex because it depends on a number of factors, such as organisational, economic, cultural, natural, social and political factors. Transforming this complex reality into indicators responsible for objectively representing the competitiveness of a destination was a challenge.

The construct was designed to measure the competitiveness of destinations without taking into account their geography, population, level of development or tourism potential. With such a standardised procedure, it was possible to compare destinations and make generalisations, but there is a risk that the comparison is ambiguous when dealing with very dissimilar destinations.

It is important to highlight that the subjective factors, present in the previous models, specially Dwyer & Kim (2003) and Crouch & Ritchie (1995, 1999), are as important as the objective ones. Dwyer and Kim (2003) also suggest that the integration of objective and subjective attributes of competitiveness would be an important issue for future research. The possibility of incorporating
qualitative factors to the quantitative ones for the construction of a competitiveness index could contribute greatly in determining the global competitiveness of the destination. The objective aspects in the assessment of the variables were the main strategy of the research. In this light, the main strategy to collect the data in an objective way is a strength of this thesis but could also be considered to be a limitation of the method adopted. Further, the subjectivity of the researcher/author is present in the data collection undertaken by the three researchers, although this judgement of values was mitigated by prior training and the equalisation of the questionnaire data collection process.

As expected in a survey of this size, some problems arose during the development work, which had to be addressed. Further, in relation to the secondary data, the latest available databases were used. However, this was not always possible and old databases were sometimes used. For example, the most current data for the Human Development Index was for 2000.

Missing data were treated by the imputation of data from cities ranked in the same cluster size. Thus, clusters of cities by size of missing data were formed in order to replace data with the existing results from the same cluster.

The primary data collection depends directly on the respondent's knowledge about the object of study. In this research, it was done an average of 35 interviews per destination resulting 530 interviewed. At the work field, the potential respondent was not always the individual who held the accurate information requested. In some cases, the researcher was forced to find other respondents.
Another limitation of the study was the researcher's unfamiliarity with the destinations. In several situations, the tourist attractions were no longer available to be visited due to lack of local information: visiting hours, transportation schedules and other facilities. In these cases, the researcher had to look for alternative forms of access/transportation or to return in another proper period of the day.

Local and regional political representatives ended up being part of the respondents, as many of the researches were local public managers. The researcher had to stay away the political aspects and know how to check the veracity of answers throughout other sources.

There was also a need to evaluate some attractions throughout reports rather than direct observation, as would be preferable. Some natural attractions, for example, were difficulty of access and coverage in the whole extension due its unproportional geography (i.e. the Amazon Rainforest where destinations like Parintins and Manaus are located). Other cultural attractions, such as prescheduled events, could not be happening at the time of the researchers' visit.

5.7 TESTING THE RESEARCH MODEL

After the collection and processing of the data, statistical tests were performed to validate the model built. These statistical procedures aimed to estimate the reliability of the questionnaire used in the search for competitiveness and ascertain significant differences between the mean dimensions of competitiveness in the basic groups for the selected cities.
5.7.1 Pearson Correlation Coefficient

The Pearson correlation coefficient measures the linear degree of the relationship between two quantitative variables. This ratio varies between the values -1 and 1. The value 0 (zero) means that there is no linear relationship, the value of 1 indicates a perfect linear relationship and -1 indicates a perfect inverse linear relationship, i.e., when one of the variables increases, the other decreases. A closer value to 1 or -1 indicates a stronger linear association between two variables. In the present study, a strong positive correlation was considered to be more than 0.7 and a strong negative correlation less than -0.7.

5.7.2 Cronbach’s Alpha

The Cronbach’s alpha coefficient was used to test the reliability of the model, which measures the homogeneity of the components of a scale, i.e., the internal consistency of items. We used 13 different tests – one for each dimension of the model – and another for the overall outcome of the 15 destinations. Cronbach’s alpha (α) is an important indicator of the statistical reliability of a psychometric instrument, sometimes called the reliability coefficient of a scale. This extraction method considers the variables in the analysis as a sample from the universe of potential variables. It maximises the reliability or alpha reliability (Cronbach) of the factors.

The score for each item is computed and the overall classification, called the scale, defined by the sum of all scores. Then, the reliability coefficient (Cronbach’s alpha) is calculated, which is defined as the square of the correlation between scores on the scale and the factor underlying the scale it is
supposed to measure. The higher the correlation between the items of an instrument, the greater the value of Cronbach's alpha is. For this reason, it is also known as the internal consistency test.

5.7.3 Cluster Analysis

Cluster analysis aims to group the data into classes in which the elements are as similar to one another or as different from each other as possible. This analysis allows the researcher to create an identification of each cluster to represent the average member of each group. This allows us to characterise the typical element of a group and the typical differences between groups.

The use of a cluster analysis in this thesis aims at sorting different objects into groups in a way that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise. The cluster analysis can be used to discover structures in data without providing an explanation/interpretation.

The purpose of this analysis is to join objects into successively larger clusters, using some measure of similarity or distance. A result of this clustering is presented in two hierarchical tree. The tree clustering method uses the dissimilarities (similarities) or distances between objects when forming the clusters.
5.7.4 Descriptive statistics

Descriptive statistics supplies simple summaries about the observations that have been made. It was used to form the basis of the description of the data as part of a statistical analysis about location and dispersion:

- Median
- Standard Deviation
- Coefficient of variation

5.8 TESTING RESULTS

5.8.1 Pearson Correlation Coefficient

In order to analyse the correspondence among the 13 dimensions of the study, the Pearson correlation coefficient was used. In this way, it was noted that the dimensions of Marketing, General Infrastructure, Social Aspects and Regional Cooperation did not correlate strongly with other dimensions, while Access, Tourist Services and Equipment, Business Capacity and Cultural Aspects correlated positively with four other variables (Table 12 and 12.1).

Table 12: Strong correlation among the dimensions of competitiveness

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Strong correlation within the dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Infrastructure</td>
<td>-</td>
</tr>
<tr>
<td>Access</td>
<td>Tourist Services and Equipment</td>
</tr>
<tr>
<td></td>
<td>Local Economy</td>
</tr>
<tr>
<td></td>
<td>Business Capacity</td>
</tr>
</tbody>
</table>
The Figure 12.1 presents the correlation among the dimensions of competitiveness.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Strong correlation within the dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourist Services and Equipment</td>
<td>Cultural Aspects</td>
</tr>
<tr>
<td></td>
<td>Access</td>
</tr>
<tr>
<td></td>
<td>Public Policies</td>
</tr>
<tr>
<td></td>
<td>Business Capacity</td>
</tr>
<tr>
<td></td>
<td>Cultural Aspects</td>
</tr>
<tr>
<td>Tourist Attractions</td>
<td>Local Economy</td>
</tr>
<tr>
<td>Marketing</td>
<td>-</td>
</tr>
<tr>
<td>Public Policies</td>
<td>Tourist Services and Equipment</td>
</tr>
<tr>
<td>Regional Cooperation</td>
<td>-</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Cultural Aspects</td>
</tr>
<tr>
<td>Local Economy</td>
<td>Access</td>
</tr>
<tr>
<td></td>
<td>Tourist Attractions</td>
</tr>
<tr>
<td>Business Capacity</td>
<td>Access</td>
</tr>
<tr>
<td></td>
<td>Tourist Services and Equipment</td>
</tr>
<tr>
<td>Social Aspects</td>
<td>Business Capacity</td>
</tr>
<tr>
<td>Environmental Aspects</td>
<td>-</td>
</tr>
<tr>
<td>Cultural Aspects</td>
<td>Access</td>
</tr>
<tr>
<td></td>
<td>Tourist Services and Equipment</td>
</tr>
<tr>
<td></td>
<td>Monitoring</td>
</tr>
<tr>
<td></td>
<td>Business Capacity</td>
</tr>
</tbody>
</table>
Figure 12.1 - Correlation among the dimensions of competitiveness.
5.8.2 Cronbach's Alpha

Through the results of the 15 cities for the 13 dimensions, it was possible to calculate the variance of each item and the variance of the set of items (i.e. the full evaluation). The result found using Cronbach's alpha resulted in 0.92, as shown in Table 13, validating the questionnaire. When testing the possibility of deleting any of the dimensions, the general result showed no significant change.

Table 13: Cronbach's Alpha with 13 dimensions

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.920</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 14: Cronbach's alpha by dimension if deleted – 13 dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Infrastructure</td>
<td>0.913</td>
</tr>
<tr>
<td>Access</td>
<td>0.905</td>
</tr>
<tr>
<td>Tourist Services and Equipment</td>
<td>0.904</td>
</tr>
<tr>
<td>Tourist Attractions</td>
<td>0.916</td>
</tr>
<tr>
<td>Marketing</td>
<td>0.916</td>
</tr>
<tr>
<td>Public Policies</td>
<td>0.914</td>
</tr>
<tr>
<td>Regional Cooperation</td>
<td>0.936</td>
</tr>
<tr>
<td>Monitoring</td>
<td>0.914</td>
</tr>
<tr>
<td>Local Economy</td>
<td>0.910</td>
</tr>
<tr>
<td>Business Capacity</td>
<td>0.907</td>
</tr>
<tr>
<td>Social Aspects</td>
<td>0.913</td>
</tr>
<tr>
<td>Environmental Aspects</td>
<td>0.915</td>
</tr>
<tr>
<td>Cultural Aspects</td>
<td>0.907</td>
</tr>
</tbody>
</table>
In order to group municipalities according to their levels of competitiveness, cluster analysis was used. It is noted that the four groups presented in Figure 13 were formed.

**Figure 13: Cluster of Cities**

<table>
<thead>
<tr>
<th>CITY</th>
<th>CASE</th>
<th>Num</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fernando de Noronha</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Tiradentes</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Bonito</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Caldas Novas</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Jiúca de Jeriçoacoara</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>São Joaquim</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Parintins</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Angra dos Reis</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gramado</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Manaus</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Porto Alegre</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Salvador</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Recife</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Florianópolis</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

In the first group, there are five cities with an advanced level of competitiveness; these are all major State capitals in the South, Southeast and Northeast regions (Porto Alegre, Rio de Janeiro, Recife, Salvador and Florianópolis). The second group, with municipalities of average competitiveness, is formed by one State capital and three consolidated tourist destinations: Manaus, Angra dos Reis and Gramado.

The third group, with a basic level of competitiveness, comprises Fernando de Noronha, Bonito, Tiradentes and Caldas Novas. Finally, the fourth group, with
the lowest level competitiveness, is formed by the municipalities of São Joaquim, Parintins and Jijoca of Jericoacoara.

A second cluster analysis was made in order to group the dimensions researched in the 15 cities analysed. In this analysis can be observed two groups and three dimensions with dissimilar results. In the first group, it can be set up Access, Local Economy, Tourist Attractions, Social Aspects and General Infrastructure. The second group is formed by the Tourist services and equipments, Cultural Aspects, and Public Policies dimensions. The dimensions Marketing, Regional Cooperation and Monitoring do not contain relationship with the others (Figure 13.1).

Figure 13.1: Clusters of Dimensions

The results of the dimensions demonstrate a short dispersion between the dimensions. The coefficient of variation of the dimensions are inferior a 50%. It can be highlighted the dimensions Tourist Attractions, Social aspects and General Infrastructure with the lowest coefficient of variation (14%, 16% and 16% in that order), in other words, the results of the cities studied do not show
a dispersion in reference to the mean. On the other hand, the dimensions Monitoring and Business Capacity, present the major dispersion in the cities.

**Descriptive statistics**

The results of the dimensions demonstrate a short dispersion between the dimensions. The coefficients of variation of the dimensions are inferior a 50%. It can be highlighted the dimensions Tourist Attractions, Social aspects and General Infrastructure with the lowest coefficient of variation (14%, 16% and 16% in that order), in other words, the results of the cities studied do not show a dispersion in reference to the mean. On the other hand, the dimensions Monitoring and Business Capacity, present the major dispersion in the cities with a Coefficient of Variation of 46% and 41% respectively. The results are presented in the table below.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Infrastructure</td>
<td>73,4</td>
<td>12,08</td>
<td>16%</td>
</tr>
<tr>
<td>Access</td>
<td>63,4</td>
<td>15,96</td>
<td>25%</td>
</tr>
<tr>
<td>Tourist Services and Equipment</td>
<td>57,9</td>
<td>16,96</td>
<td>29%</td>
</tr>
<tr>
<td>Tourist Attractions</td>
<td>66,3</td>
<td>9,15</td>
<td>14%</td>
</tr>
<tr>
<td>Marketing</td>
<td>50,2</td>
<td>11,42</td>
<td>23%</td>
</tr>
<tr>
<td>Public Policies</td>
<td>61</td>
<td>16,25</td>
<td>27%</td>
</tr>
<tr>
<td>Regional Cooperation</td>
<td>51,5</td>
<td>15,59</td>
<td>30%</td>
</tr>
<tr>
<td>Monitoring</td>
<td>37,6</td>
<td>17,47</td>
<td>46%</td>
</tr>
<tr>
<td>Local Economy</td>
<td>66,6</td>
<td>14,50</td>
<td>22%</td>
</tr>
<tr>
<td>Business Capacity</td>
<td>67,7</td>
<td>28,09</td>
<td>41%</td>
</tr>
<tr>
<td>Social Aspects</td>
<td>61,9</td>
<td>9,99</td>
<td>16%</td>
</tr>
<tr>
<td>Environmental Aspects</td>
<td>72,9</td>
<td>14,26</td>
<td>20%</td>
</tr>
<tr>
<td>Cultural Aspects</td>
<td>62,1</td>
<td>16,89</td>
<td>27%</td>
</tr>
</tbody>
</table>
CHAPTER 6

6 RESULTS AND DISCUSSION

6.1 INTRODUCTION

The points of each dimension for each destination were generated from the information collected in the field using the weights previously stated by the general formula. The competitiveness index is presented as a scale of 0–100 points. The overall result of destination competitiveness is shown in Figure 14. The results for each dimension are presented in the graphics that follow with an explanation of the data found.
The general competitiveness index of the 15 tourist destinations refers to the sum of the 13 dimensions evaluated, which scored an average of 60,4 points. In this sense, the most competitive cities were the State capitals Recife (76,30) and Rio de Janeiro (74,9) and the least competitive were Jijoca de Jericoacoara (44,20) and São Joaquim (45,10). This variation of 42,1% between best placed
and worst demonstrates a great magnitude in terms of competitiveness, whose causes could best be understood by the analysis of the results of each competitiveness dimension.

**Figure 15: General infrastructure**

<table>
<thead>
<tr>
<th>City</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recife</td>
<td>87.4</td>
</tr>
<tr>
<td>Florianópolis</td>
<td>85.3</td>
</tr>
<tr>
<td>Porto Alegre</td>
<td>82.9</td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>82.0</td>
</tr>
<tr>
<td>Salvador</td>
<td>81.9</td>
</tr>
<tr>
<td>São Joaquim</td>
<td>77.4</td>
</tr>
<tr>
<td>Fernando de Noronha</td>
<td>77.0</td>
</tr>
<tr>
<td>Gramado</td>
<td>73.4</td>
</tr>
<tr>
<td>Manaus</td>
<td>72.2</td>
</tr>
<tr>
<td>Caldas Novas</td>
<td>67.5</td>
</tr>
<tr>
<td>Angra dos Reis</td>
<td>63.3</td>
</tr>
<tr>
<td>Tiradentes</td>
<td>62.5</td>
</tr>
<tr>
<td>Bonito</td>
<td>57.9</td>
</tr>
<tr>
<td>Parintins</td>
<td>55.6</td>
</tr>
<tr>
<td>Jijoca de Jericoacoara</td>
<td>47.4</td>
</tr>
</tbody>
</table>

The General Infrastructure dimension scored an average of 71.6 points, which was the highest number of points among the 13 dimensions of the model. This dimension includes (I) the capacity of medical assistance in the destination, (II)
the generation of energy, (III) tourist protection services and (IV) urban infrastructure in tourist areas. The magnitude of this dimension varied from 87.40 in Recife to 47.40 in Jijoca de Jericoacoara, presenting a standard deviation of 12.08 and a coefficient of variation of 16%, demonstrating homogeneous distribution and a short dispersion between the cities. The General Infrastructure dimension values were significantly correlated (P >0.01) with Access, Cultural Aspects, Local Economy and Social Aspects.

In general, the factors that positively influenced this dimension were the availability of 24-hour emergency medical assistance, the uninterrupted supply of electricity even in high seasons and the existence of fire teams. For Urban Infrastructure, destinations with the highest scores had good conservation practices in urban tourist areas such as cleaning services, the beautification of public areas, gardens and squares and urbanised piers. The existence of specific spaces for parking and stops for tourist transportation, which are important factors for the competitiveness of destinations, was further observed.

Among the factors that had a negative influence on the results in this dimension were the nonexistence of a dedicated program for tourist protection in police stations and the nonexistence of a special search and rescue team within the fire service. Moreover, the absence of public restrooms in the vicinity of tourist areas and the lack of adequate draining impacted negatively in the General Infrastructure dimension. Finally, destinations with low scores had inadequate conservation in terms of urban facilities and green areas.
The Access dimension received an average of 65.1 points among the 15 cities analysed. The components of this dimension are (I) air access; (ii) road access; (iii) water access; (iv) rail access; (V) transport system in the destination; and (vi) proximity of major tourist cities. The highest score was achieved by Rio de Janeiro with 88.2 points, while the city of Parintins, in the Amazon area, had the worst competitiveness index in the Access dimension (40.9). This
dimension also presented reasonable homogeneity between cities, presenting a standard deviation of 16.0 and a coefficient of variation of 25%, demonstrating consistent distribution and a short dispersion between the cities. The correlations of Access dimension with Business Capacity, Cultural Aspects, General Infrastructure, Local Economy, Tourist Attractions and Tourist Services and Equipment are significant at the 0.01 level.

The positive points that contributed favourably towards the competitiveness of destinations in relation to airport access were the availability of airports in the municipal territory or in a neighbouring city, the structure of terminal facilities and the variety of public transport options or concessions to travellers disembarking at the airport.

Regarding road access, the following factors positively influenced the index of destination competitiveness: the condition of the main motorways, the existence and structure of bus stations and the availability of transportation for tourists embarking and disembarking via road.

Similarly, water access favourably influenced competitiveness through the following: the existence of docks and ferry landings in cities, which made use of this form of transport, and the structure of those terminals to facilitate the flow of travellers.

The transport system in the destination also contributed favourably to competitiveness. The existence of urban transport lines to the main tourist attractions, the diversity of public transportation as well as their regularity, standardisation and comfort were all factors considered. Finally, the
availability of direct links between airports and the main tourist centres counted positively for the competitiveness index in this dimension.

Conversely, negative aspects included the lack of airport facilities (e.g. the absence of tourist information centres, banking services, currency exchanges and facilities for physically impaired people), precarious dock and ferry landing structures and the lack of regular tourist and public transport lines to the main tourist attractions. Congestion during large events and a lack of parking spaces during high season were also factors that had a negative influence on the competitiveness of destinations in this dimension.
The Tourist Services and Equipment dimension received a modest result with an average of 57.1 points on the competitiveness index. This dimension comprised the following variables: (I) Tourist Signalling and Orientation; (II) Tourist Information Centres; (III) Arenas for Events; (IV) Capacity of Accommodation Facilities; (V) Capacity of Reception Tour Operators; (VI) Tourism Qualification Structure; and (vii) Restaurant Capacity. The city of Rio de Janeiro (SE) was best placed with 78.0 points, while the city of São Joaquim (S) ranked lowest with 27.3 points. In This dimension the standard deviation is
17.0 and a coefficient of variation of 29%, demonstrating also an uniform
distribution and a standard dispersion between the cities. The Tourist Services
and Equipment dimension is correlated with Access, Business Capacity,
Cultural Aspects, Environmental Aspects, Monitoring, Public Policies and
Social Aspects.

The result of the destination evaluations in this dimension was positively
influenced by the existence of tourist information centres, with reasonable
infrastructure and a diversity of services. Convention centres and other venues
such as conference rooms for events in small and medium-sized hotels were
observed in the majority of destinations. Concerning Accommodation
Facilities, the existence of representative organisations, which discuss and
defend the interests of the enterprises within destinations, was evident; further,
the physical structures are mostly well equipped and in a good condition in
terms of conservation. Another positive point was that the reception tour
operators offered diversified services.

Among the factors that negatively influenced the index of destinations in this
dimension were the scarcity of tourist road signs in foreign languages and of
descriptive or interpretative tourist signs at tourist attractions and sights.

Regarding accommodation, the lack of formal incentives to use technologies
that prioritise the environment in establishments and the nonconformity of
issues of accessibility in the majority of these establishments were noted. Not
all destinations had reception tour operators who offer services in foreign
languages. It was also observed that restaurants do not have formal incentives
to adopt technologies that prioritise the environment and that the majority of establishments in this sector have not adopted accessibility measures for the physically impaired, points that contributed negatively to the results in this dimension.

Figure 18: Tourist attraction results

<table>
<thead>
<tr>
<th>Tourist Attractions</th>
<th>Porto Alegre</th>
<th>Florianópolis</th>
<th>Angra dos Reis</th>
<th>São Joaquin</th>
<th>Tiradentes</th>
<th>Parintins</th>
<th>Jijoca de Jericoacoara</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>67,5</td>
<td>65,4</td>
<td>62,0</td>
<td>58,5</td>
<td>58,0</td>
<td>58,0</td>
<td>54,1</td>
</tr>
</tbody>
</table>
In the Tourist Attractions dimension, destinations achieved an average of 67.5 points, with the highest scored by Rio de Janeiro (SE) at 78.0 points and the lowest by Jijoca de Jericoacoara (NE) with 27.3 points. This dimension analysed the following variables: (I) natural attractions; (II) cultural attractions; (III) programmed events; and (IV) technical, scientific or artistic events. The standard deviation of the dimension is 9.2 and a coefficient of variation of 14%, demonstrating a consistent distribution and a diminutive dispersion between the cities. Tourist Attractions dimension values were significantly correlated (P > 0.01) with Access, Business Capacity and Local Economy.

The score in this dimension was influenced positively by the existence of diverse natural and cultural attractions, which are responsible for a flow of tourists as well as the structure of main support to tourists. The result was also positively affected by the existence of programmed events that attract tourists. Some destinations also offered technical, scientific or artistic events that encourage visitors throughout the year.

By contrast, many natural and cultural attractions do not have a maximum capacity study or form of support to minimise the impact of the tourist activity on these resources. The state of conservation of some attractions was also precarious, while the lack of infrastructure for the access or circulation of people with a physical deficiency was poor.
The 15 destinations received an average score of 49.0 points in the Marketing dimension, the second lowest result in the study. The following variables were analysed in the Marketing dimension: (I) Marketing Plan; (II) Participation in Fairs and Events; (III) Destination Promotion; and (IV) Destination Webpage. The city of Recife (NE) had the best results in this dimension (71.4) and Parintins the worst (28.7), presenting a standard deviation of 11.4 and
a coefficient of variation of 23%, demonstrating also an uniform distribution and a reasonable dispersion between the cities. Marketing did not correlate at the 0.01 level of significance with other dimensions.

Positive points included participation in fairs and events in the tourism sector at different levels, while the promotion of events where destinations promoted themselves in specific markets was also observed. Many destinations offer promotional material in various foreign languages. Websites were widely used as a form of promotion for destinations, where webpages offered up-to-date tourist information.

One of the main negative influences was the lack of a formal marketing plan, with goals, responsibilities and performance indicators defined. Another negative point was the fact that many destinations did not evaluate the results of the events in which they participated. The lack of a specific telephone exchange for tourist information, through which visitors can get information on attractions and available equipment and services in destinations, was also noted as a negative aspect. Finally, there was a lack of more widespread material on preventing the sexual exploitation of children and adolescents in tourism and on preserving the environment.
To evaluate the Public Policies dimension, the following aspects were considered: (I) Municipal Structure for Tourism Support; (II) Degree of Cooperation with State Government; (III) Degree of Cooperation with Federal Government; (IV) Plans for the City and Touristic Activities; and (V) Degree of Public/Private Sector Cooperation. The average competitiveness index achieved for the 15 destinations for this dimension was 55.6 points, with the
city of Florianópolis (S) scoring the highest points at 76.1 points, and the city of Manaus (N), the worst, with 29.5 points. The standard deviation of the dimension is 16.3 and a coefficient of variation of 27%, demonstrating also an consistent distribution and a middling dispersion between the cities. The correlations of Public Policies dimension with Access and Social Aspects are significant at the 0.01 level.

Favourably, the existence of city departments that coordinate the development of tourism – especially those with projects developed in conjunction with other secretariats – the private sector and representative entities of the tourism sector was observed. Another positive factor was that some destinations adopted administrative or fiscal modernisation programs in their management and that they adhered to up-to-date municipal management plans.

However, from a negative perspective, some destinations did not have dedicated managers or their own resources to coordinate the development of the sector. It was also noted that some cities had no form of governmental or municipal tourism forum dedicated to documenting tourist activities. Moreover, the lack of formal planning for the tourism sector in some destinations negatively influenced the outcome of this dimension.
The average competitiveness index for the 15 destinations for Regional Cooperation was 49.4 points, where the best position was for Florianópolis (N) with 69.2 points and worst, Parintins (N), with 14.7 points. The following variables were analysed: (I) Governance; (II) Regional Cooperation Projects; (III) Regional Touristic Planning; (IV) Routes; and (V) Promotion and Support for Integrated Commercialisation. The standard deviation of the dimension is
15.6 with a coefficient of variation of 30%, demonstrating also a consistent distribution and a standard dispersion between the cities. Regional Cooperation did not correlate at the 0.01 level of significance with other dimensions.

The research showed that destinations with the best scores in this dimension possess a regional government office with the active participation of diverse tourism stakeholders. Moreover, these offices make use of executive managers in conducting their activities. Other factors that contributed positively to competitiveness in this dimension were the mobilisation actions by tourism stakeholders and the existence of regional cooperation projects among cities within the same tourist region. By contrast, the lack of resources in regional offices was observed (lack of representation in the state forums of tourism and lack of plans for integrated tourism development). Moreover, no joint actions for promoting destinations belonging to the same tourist region were observed.
The Monitoring dimension scored the worst competitiveness results, averaging 38.2 points, varying from 81.5 points in Recife (NE) to 10.2 in São Joaquim (S). The following questions were analysed in this dimension: (I) Demand
Research; (II) Offer Research; (III) Tourism Statistics System; (IV) Touristic Activities Impact Measurement; and (V) Specific Studies and Research Sector. The dimension demonstrate standard deviation of 17.5 and a coefficient of variation of 46%, demonstrating heterogeneous distribution and an important dispersion between the cities. The Monitoring dimension is correlated with Cultural Aspects and Tourist Services and Equipment at the 0.01 level of significance.

Destinations that carried out periodic research on demand and had up-to-date research on touristic offerings contributed positively to the result of the Monitoring dimension, as this offers relevant information for the planning and propagation of information on the destination. In addition, the follow-up of the performance of the objectives of tourism policies at the municipal level by means of technical tourism statistics was considered to be a positive point for the competitiveness of destinations.

However, the majority of destinations do not have performance index systems nor do they generate tourist predictions. It was further evidenced that many destinations do not monitor the economic, social, environmental and cultural impacts generated by tourism. Another negative aspect for competitiveness in this dimension was that few cities employ specific sectors of studies for tourism in their public administration nor do institutions carry out research on tourism.
The Local Economy dimension achieved an average of 67.1 points, with the highest result in Rio de Janeiro (91.20) and the lowest in Jijoca de Jericoacoara (34.80). The standard deviation of the dimension is 14.5 and a coefficient of variation of 22%, demonstrating also an consistent distribution and a small
dispersion between the cities. The Local Economy dimension values were significantly correlated ($P > 0.01$) with Access, Business Capacity, Cultural Aspects, General Infrastructure and Tourist Attractions.

To evaluate the Local Economy dimension, the following aspects were considered: (I) Aspects of the Local Economy; (II) Communications Infrastructure; (III) Business Infrastructure and Facilities; and (IV) Propulsion Events or Ventures.

The aspects that most contributed to the competitiveness of this dimension were the availability of broadband access and free public access to the Internet; 24-hour cash machines with the option of withdrawals using international credit cards; currency exchange establishments for foreign tourists; incentives for formalising commercial establishments and services; the active presence of organisations such as the Convention and Visitors Bureau; and the existence of physical production and businesses to stimulate the local economy.

By contrast, the following inhibiting factors were detected: the absence of educational institutions with regular technical training programs; the lack of qualified local staff to work in tourism companies; obstacles for opening new tourism enterprises with access infrastructure for people with physical deficiencies and difficulties obtaining environmental licensing; and the lack of large companies (more than 1000 employees).
The competitiveness average for the 15 destinations in the Business Capacity dimension was 62.2 points, where Florianópolis scored highest (94.2) and Fernando de Noronha lowest (21.2, presenting a standard deviation of 28.1 and a coefficient of variation of 41%, demonstrating an reasonable distribution and a inconsistent dispersion between the cities. The correlations of Business
Capacity dimension with Access, Cultural Aspects, Environmental Aspects, Local Economy, Social Aspects, Tourist Attractions and Tourist Services and Equipment are significant at the 0.01 level.

The following factors were analysed in this dimension: (I) Qualifications and Utilisation of Local Workforce; (II) Presence of National or International Tourism Sector Representatives; (III) Competition and Obstacles; and (IV) Presence of Large Businesses, Branches or Subsidiaries.

Among the positive aspects identified in this dimension were the presence of education institutions with regular programs of technical qualifications, higher education and free courses; foreign language schools; local qualified staff to work in administrative or management positions in tourism companies; the presence of national or international groups from the tourism sector (car rentals, hotels and restaurant chains); and qualification and training programs specifically directed towards entrepreneurs or managers.

However, there was also a lack of qualified local staff to work in administrative and management positions in tourism companies; no national or international groups from the tourism sector (such as car rentals, restaurants and hotel chains); no locally organised productive tourism enterprises; and a lack of companies that produce and export high-value merchandise.
Figure 25: Social aspects

The Social Aspects dimension achieved 62.2 points for competitiveness, with Porto Alegre (S) obtaining the highest score (76.50) and Tiradentes (SE) the lowest (42.70). The dimension demonstrates standard deviation of 10.0 and a coefficient of variation of 16%, demonstrating uniform distribution and a unimportant dispersion between the cities. The Social Aspects dimension is
correlated with Business Capacity, General Infrastructure, Public Policies and Tourist Services and Equipment at the 0.01 level of significance.

The following variables were analysed: (I) Access to Education; (II) Jobs Generated by Tourism; (III) Policies on the Prevention of Child and Teenage Sexual Exploitation; (IV) Use of Tourist Attractions and Equipment by the Population; and (V) Citizenship, Awareness and Participation in Touristic Activities.

In this dimension, destinations with the best scores were highlighted for investment in education (exceeding the mandatory percentage in the Federal Constitution); for the adoption of policies for the prevention of child and teenage sexual exploitation; for the involvement of the local population in budgeting; and for making citizens aware of the importance of tourist activities for the destination.

However, among the aspects that resulted in negative impacts were the use of informal workers during high season and not adopting these policies on the prevention of sexual exploitation. Besides these factors, some secondary data on this dimension contributed to the overall low results, including the percentage of inhabitants with access to education, the Basic Education Development Index and the Municipal Human Development Index.
The average result of the Environmental Aspects dimension was 68.50 points, with a magnitude between the highest score for Manaus (N) and the lowest for São Joaquim (S) of 28.5 points. The standard deviation of the dimension is 14.3 and a coefficient of variation of 20%, demonstrating also an consistent distribution and a small dispersion between the cities. The Environmental
Aspects dimension values were significantly correlated (\(P > 0.01\)) with Business Capacity and Tourist Services and Equipment.

For the evaluation of the Environmental Aspects dimension, the following aspects were verified: (I) Municipal Environmental Structure and Legislation; (II) Polluting Activities; (III) Public Water Distribution Network; (IV) Public Drainage and Sewage Collection and Treatment; (V) Public Waste Collection and Disposal; and (VI) Conservation Units within Municipal Territories.

In this dimension, the following factors impacted positively on destinations: the existence of a municipal agency to coordinate and stimulate environmental preservation and manage resources; the effective participation of municipal environmental councils, financed by municipal funds; and the existence of an Environmental Code. As regards sanitation, public networks of water distribution and treatment plants along with periodic educational campaigns for the proper use of the resource were observed. Finally, policies for monitoring the recreational use of water in natural environments (such as rivers, lakes, lagoons or beaches) were observed. However, the negative impacts in this dimension were the lack of municipal funds for the environment and the absence of Environmental Codes or similar.

In this sense, the lack of specific legislation for the adoption of clean or renewable energy sources in public or private establishments was also noted, as well as water treatment plants for reutilisation. Other factors that contributed to the low competitiveness index in the Environmental Aspects dimension were the lack of covered public sewers and the inappropriate disposal of domestic
waste. Regular campaigns for environmental education were also not observed in destinations, while the limited number of conservation units also contributed to reducing competitiveness in this dimension.

Figure 27: Cultural aspects

<table>
<thead>
<tr>
<th>Cultural Aspects</th>
<th>Average</th>
<th>Salvador</th>
<th>Florianópolis</th>
<th>Recife</th>
<th>Rio de Janeiro</th>
<th>Manaus</th>
<th>Porto Alegre</th>
<th>Tiradentes</th>
<th>Angra dos Reis</th>
<th>Gramado</th>
<th>Parintins</th>
<th>São Joaquim</th>
<th>Caldas Novas</th>
<th>Bonito</th>
<th>Fernando de Noronha</th>
<th>Jijoca de Jericoacoara</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>59,3</td>
<td>86,1</td>
<td>69,6</td>
<td>83,6</td>
<td>79,4</td>
<td>68,1</td>
<td>66,6</td>
<td>64,0</td>
<td>62,1</td>
<td>55,8</td>
<td>54,2</td>
<td>44,9</td>
<td>44,7</td>
<td>40,6</td>
<td>40,4</td>
<td>30,2</td>
</tr>
</tbody>
</table>

The average cultural aspect score was 59.3%. The highest score was recorded in Salvador (86.1%) and the lowest in Jijoca de Jericoacoara (30.2%). A consistent trend over the years contributed to a high proportion of cultural and natural heritage activities within the destinations analyzed, including traditional cultural and indigenous tourism projects.
The Cultural Aspects dimension received an average of 59.3 points for competitiveness, with Salvador (NE) scoring the highest (86.10) and Jijoca de Jericoacoara the lowest (30.20). The standard deviation of the dimension is 16.9 and a coefficient of variation of 27%, demonstrating also an consistent distribution and a regular dispersion between the cities. The correlations of The Cultural Aspects dimension with Access, Business Capacity, General Infrastructure, Local Economy, Monitoring and Tourist Services and Equipment are significant at the 0.01 level.

In this dimension, the following items were examined: (I) Cultural Productions Associated with Tourism; (II) Historical and Cultural Heritage; and (III) Municipal Structure for Cultural Support.

The following factors were decisive for competitiveness in this dimension: craft activities; local cuisine for which destinations are recognised; cultural traditions typical of destinations; religious events that attract tourist flows; traditional communities with their ways of life; registered cultural and material heritage activities, in particular those recognised by the Institute of National Historical and Artistic Heritage and UNESCO; activities carried out by local government bodies with the exclusive responsibility of cultural management; the adherence of a municipal cultural policy; municipal legislation for culture with a municipal fund exclusively for culture; and cultural tourism projects.

Destinations that did not have cultural and material heritage lowered the scores for this dimension. Contributing negatively also were destinations whose local culture administration agencies did not have their own financial resources;
destinations without municipal cultural legislation and municipal funds for culture; and those with no projects for cultural tourism and who did not monitor the touristic use of their cultural heritage with load capacity control.

Table 15 summarises the results for the 15 tourist destinations evaluated.
Table 15: Consolidated results for the 15 tourist destinations

<table>
<thead>
<tr>
<th>Destination</th>
<th>General Results</th>
<th>General Infrastructure</th>
<th>Access</th>
<th>Tourist Services and Equipment</th>
<th>Tourist Attractions</th>
<th>Marketing</th>
<th>Public Policies</th>
<th>Regional Cooperation</th>
<th>Monitoring</th>
<th>Local Economy</th>
<th>Business Capacity</th>
<th>Social Aspects</th>
<th>Environmental Aspects</th>
<th>Cultural Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angra dos Reis</td>
<td>61.6</td>
<td>63.3</td>
<td>63.4</td>
<td>57.9</td>
<td>62.0</td>
<td>50.3</td>
<td>61.0</td>
<td>66.5</td>
<td>45.6</td>
<td>66.6</td>
<td>68.1</td>
<td>57.4</td>
<td>74.5</td>
<td>62.1</td>
</tr>
<tr>
<td>Bonito</td>
<td>54.8</td>
<td>57.9</td>
<td>64.8</td>
<td>42.7</td>
<td>70.4</td>
<td>50.2</td>
<td>51.9</td>
<td>63.8</td>
<td>20.0</td>
<td>74.2</td>
<td>43.7</td>
<td>56.2</td>
<td>64.1</td>
<td>40.6</td>
</tr>
<tr>
<td>Caldas Novas</td>
<td>57.5</td>
<td>67.5</td>
<td>56.5</td>
<td>47.0</td>
<td>73.0</td>
<td>35.9</td>
<td>49.1</td>
<td>57.1</td>
<td>27.3</td>
<td>64.4</td>
<td>67.7</td>
<td>70.4</td>
<td>77.5</td>
<td>44.7</td>
</tr>
<tr>
<td>Fernando de Noronha</td>
<td>50.8</td>
<td>77.0</td>
<td>41.2</td>
<td>34.0</td>
<td>66.3</td>
<td>59.9</td>
<td>30.8</td>
<td>45.9</td>
<td>42.1</td>
<td>59.8</td>
<td>21.2</td>
<td>61.9</td>
<td>74.5</td>
<td>40.4</td>
</tr>
<tr>
<td>Florianópolis</td>
<td>70.0</td>
<td>85.3</td>
<td>74.1</td>
<td>73.9</td>
<td>62.7</td>
<td>50.4</td>
<td>76.1</td>
<td>69.2</td>
<td>32.0</td>
<td>61.6</td>
<td>94.2</td>
<td>71.1</td>
<td>72.9</td>
<td>69.6</td>
</tr>
<tr>
<td>Gramado</td>
<td>61.0</td>
<td>73.4</td>
<td>62.6</td>
<td>66.3</td>
<td>69.0</td>
<td>49.8</td>
<td>63.8</td>
<td>41.3</td>
<td>31.3</td>
<td>74.3</td>
<td>53.8</td>
<td>65.5</td>
<td>68.5</td>
<td>55.8</td>
</tr>
<tr>
<td>Jijoca de Jericoacoara</td>
<td>44.2</td>
<td>47.4</td>
<td>49.0</td>
<td>44.2</td>
<td>54.1</td>
<td>45.3</td>
<td>40.8</td>
<td>51.5</td>
<td>16.8</td>
<td>34.8</td>
<td>33.0</td>
<td>48.8</td>
<td>64.1</td>
<td>30.2</td>
</tr>
<tr>
<td>Manaus</td>
<td>63.9</td>
<td>72.2</td>
<td>74.8</td>
<td>71.2</td>
<td>74.9</td>
<td>45.6</td>
<td>29.5</td>
<td>32.5</td>
<td>37.6</td>
<td>71.4</td>
<td>89.2</td>
<td>56.3</td>
<td>82.9</td>
<td>68.1</td>
</tr>
<tr>
<td>Parintins</td>
<td>47.1</td>
<td>55.6</td>
<td>40.9</td>
<td>47.6</td>
<td>58.0</td>
<td>28.7</td>
<td>64.8</td>
<td>14.7</td>
<td>47.1</td>
<td>45.9</td>
<td>39.5</td>
<td>61.4</td>
<td>49.3</td>
<td>54.2</td>
</tr>
<tr>
<td>Porto Alegre</td>
<td>74.8</td>
<td>82.9</td>
<td>88.0</td>
<td>74.9</td>
<td>65.4</td>
<td>68.5</td>
<td>75.3</td>
<td>53.9</td>
<td>49.0</td>
<td>85.8</td>
<td>91.0</td>
<td>76.5</td>
<td>78.8</td>
<td>66.6</td>
</tr>
<tr>
<td>Recife</td>
<td>76.3</td>
<td>87.4</td>
<td>77.6</td>
<td>77.0</td>
<td>72.2</td>
<td>71.4</td>
<td>74.2</td>
<td>58.9</td>
<td>81.5</td>
<td>77.0</td>
<td>91.5</td>
<td>67.0</td>
<td>68.2</td>
<td>83.6</td>
</tr>
<tr>
<td>Rio de</td>
<td>74.9</td>
<td>82.0</td>
<td>88.2</td>
<td>78.0</td>
<td>84.3</td>
<td>50.4</td>
<td>70.1</td>
<td>26.5</td>
<td>53.7</td>
<td>91.2</td>
<td>93.8</td>
<td>75.2</td>
<td>79.4</td>
<td>79.4</td>
</tr>
</tbody>
</table>

234
<table>
<thead>
<tr>
<th>Janeiro</th>
<th>Salvador</th>
<th>73,8</th>
<th>81,9</th>
<th>86,0</th>
<th>70,1</th>
<th>84,0</th>
<th>50,2</th>
<th>66,1</th>
<th>47,7</th>
<th>46,6</th>
<th>78,4</th>
<th>89,6</th>
<th>71,1</th>
<th>82,2</th>
<th>86,1</th>
</tr>
</thead>
<tbody>
<tr>
<td>São Joaquim</td>
<td>45,1</td>
<td>77,4</td>
<td>57,0</td>
<td>27,3</td>
<td>58,5</td>
<td>39,2</td>
<td>37,0</td>
<td>46,8</td>
<td>10,2</td>
<td>61,3</td>
<td>25,0</td>
<td>51,7</td>
<td>28,5</td>
<td>44,9</td>
<td></td>
</tr>
<tr>
<td>Tiradentes</td>
<td>50,9</td>
<td>62,5</td>
<td>51,8</td>
<td>44,7</td>
<td>58,0</td>
<td>38,4</td>
<td>44,4</td>
<td>64,8</td>
<td>31,8</td>
<td>60,2</td>
<td>31,5</td>
<td>42,7</td>
<td>61,7</td>
<td>64,0</td>
<td></td>
</tr>
</tbody>
</table>
6.3 DISCUSSION

The overall result of the competitiveness index provided by the model highlights two groups of cities: State capital (State government offices) and non-capitals. The first group achieved average competitiveness levels exceeding 70 points (with the exception of Manaus with 63.9 points), while the second group scored less than 61 points. This occurred because the model was constructed according to the principle of cause and effect and the 13 dimensions (with their respective weights) contributed to the total level of competitiveness of capital city destinations being superior to that of non-capital cities.

In this sense, the index numbers were higher in State capital cities in 12 of the 13 dimensions of competitiveness proposed by model: General Infrastructure, Access, Tourist Services and Equipment, Public Policies, Monitoring, Local Economy, Business Capacity, Social Aspects, Environmental Aspects and Cultural Aspects. Non-capital cities had higher index numbers only in the Regional Cooperation dimension. Considering the foregoing, there are visible differences in competitiveness in tourism across Brazil, indicating that the larger the degree of development in a destination, the more competitive it is. This is the case for the capital cities, where State government offices are located.

The question of the level of development and regional inequality is crucial to the design of a tourism competitiveness model for developing countries, since while in developed countries structural issues for tourism are consolidated and
homogeneous in cities and territories, in developing countries, they vary from city to city.

For this reason, the model in this work proposes enhancing those dimensions that support tourist activity, such as Access, Infrastructure and Tourist Equipment and Services. Some examples are the variables “tourist signs”, “tourist protection services” and “tourist information centres”. The first two were considered in the four models presented this thesis, while the third was only proposed in the model of competitiveness by Dwyer and Kim (2003).

Along this same line of reasoning is the question over the unit of analysis. Since one of the objectives of this thesis was to propose a model that serves as a reference for managers to monitor the development of local tourism, it makes more sense that the analysis units are cities and not the country as a whole, as there are large gaps in the levels of competitiveness among Brazilian cities.

The question of measuring and monitoring competitiveness is also decisive for establishing a method of evaluation based on efficiency (ex ante concept). According to this assessment criterion, the identification of weaknesses (variables) in destination competitiveness is clearer, which would be difficult to determine if performance assessment were used (ex post concept).

Cross-checking the results is an important issue that affects the sustainability of local tourism, for example. Cities with vibrant tourist attractions such as Tiradentes (cultural segment), São Joaquim (rural segment), Parintins (cultural
segment) and Jijoca de Jericoacoara (sun and beach segment) presented reduced competitiveness rates on the Attractions dimension (below 60 points) not only because of their poor infrastructure, but also because they do not meet the criteria of sustainability at a higher point of interest for tourist visits. Consequently, the model of this thesis highlights the advantages of identifying factors that are prejudicial to tourism by means of three dimensions: Social Aspects, Environmental Aspects and Cultural Aspects (sustainability dimensions). By contrast, the other four models focus only on environmental sustainability.

The lowest index of the 13 dimensions is Monitoring with 38.2 points. This score shows the low technical capacity and resources of local governments to establish indicators on tourism monitoring. Monitoring would be better conducted by the public sector or in partnership with research institutes seeking sustainable development in the destination. In most cases presented, it is not carried out at all.

In addition, the degree of cooperation between local governments and the central government and their respective state governments as well as public–private sector cooperation is low. This is pointed out by the Public Policy dimension indicator (55.66 points), which encompasses these variables in addition to local planning and local infrastructure to support tourism. The low results of this dimension, along with the Monitoring and Regional Cooperation dimensions (49.4 points) denote the fragile capacity to work within networks, whether inter-destination (Regional Cooperation) or at levels of government (Public Policy).
Moreover, in relation to the unit of analysis, the proposed model in this thesis does not consider microeconomic or macroeconomic aspects, thus resembling more the models presented by Gooroochurn and Sugiyarto (2004), Crouch and Ritchie (2003) and WEF (2007), which favour the resource-based view from organisational studies to the detriment of the economic approach.

Accordingly, a destination is seen as an accumulation of resources represented by its dimensions and variables of competitiveness. By contrast, Dwyer and Kim’s (2003) model considers macroeconomic and microeconomic factors besides those related to the destination’s resources.

The model presented herein defines the phenomenon of competitiveness itself, moving away from those that verify the cause/consequence function. All models analysed made use of surveys and secondary data as sources of information, while this study collects data on site by means of observations and interviews and only refers to secondary data as a supplement.

A common result of deficiency (more evident in non-capital cities) in the management aspect of destinations can be observed: the fragility of governments and/or local leadership. This tends to become evident when you observe the vulnerability of the variables related to the normative and institutional apparatus of destinations, demonstrating clear bottlenecks for tourism competitiveness.

One interesting point observed in the results is that the information acquired by the research is actually part of public managers’ day-to-day work and may be used not just to compose this competitiveness evaluation but also as a reference.
for public policies: tourist protection programs; passenger terminals for the various modes of transport; incentives for the adoption of cleaner technologies; monitoring on the issue of accessibility for disabled persons; load capacity studies for attractions; conservation of attractions and surroundings; facilities and infrastructure at the attractions; destination marketing planning; qualified managers and own resources for the managing destinations; effectiveness of local government offices; the city’s tourist sector planning; research and destination index systems; monitoring the impacts of tourism; barriers to entry of new tourism ventures; prevention of the sexual exploitation of children and adolescents; municipal funds for culture and the environment; updated environmental legislation; and cultural incentive programs.

In view of the hindrances observed in the preceding paragraph, three interlinked lines of action for the improvement of the management of Brazilian tourist destinations can be defined: sustainability, public policies and governance.

Improving the sustainability of the destination is linked to the ability to monitor the impacts caused by tourist activities. There is a need for people and tools capable of developing studies of tourism. Further, technicians and technologies may be obtained through partnerships with higher education institutions or agreements with other spheres of government as previously stated.

In addition to monitoring the results, it would be necessary for public policies to provide legal and institutional frameworks capable of providing cities with efficient legislation and enforcement for the protection of their natural
resources, while favouring the practice of tourism in natural areas in a sustainable manner.

In the field of culture, incentives for cultural heritage preservation projects and the development of cultural tourism activities would serve to diversify and qualify the tourist offerings of destinations. Funds set up by law would support the budgets of those organisations responsible for cultural and environmental management.

Another function of public policies would be the elimination of barriers to the establishment of new businesses, tax incentives for new companies and lines of credit for entrepreneurs. Social dysfunctions can also be objects of public policies insofar as they are proactive, mitigating their causes.

The effectiveness of public policies for tourism competitiveness also depends on the performance of local governance along with management organisations in the destination, such as tourism boards. However, one of the weaknesses noted in this study is the inefficiency of such government offices. This gap may be one of the factors responsible for the lack of tourism planning in some destinations and, in many cities, the absence of a marketing plan. Not by chance, the outcome of competitiveness in the dimensions of Marketing (48.95 points) and Public Policy (55.66 points) were, respectively, the second and the fourth lowest of all cities surveyed.
6.4 FINAL REMARKS

Through the application of the presented model in 15 Brazilian cities considered to be consolidated tourist destinations in the national, and in some cases, international markets, an assessment of the level of competitiveness for those destinations could be obtained. With these results, the tourist activities in each of the cities was assessed.

Two groups of destinations were observed according to their general competitiveness: State capital cities and non-capitals. The first group achieved higher competitiveness results than the second (scoring higher in 12 of the 13 dimensions considered in the study), thereby showing considerable differences among cities and that the competitiveness of tourism in Brazil is directly linked to the levels of development in destinations.

Analyzing the variables that impacted negatively on the overall results suggested that the hindrances to competitiveness could be grouped under three headings: sustainability, public policies and governance. In this sense, sustainability is covered by monitoring and tourism research carried out for the destination through partnerships with research institutes and institutions of higher learning as well as agreements with other spheres of government. Public Policies would act in the scopes of the attractions, culture, the environment, the removal of barriers for new companies and in corporative promotion. Governance, especially tourism boards, would assist the management of the destination to incorporate public policies, transforming them into strategic plans for the development of tourism in the city.
For these reasons, the proposed measurement model offers the following advantages: (I) it uses cities as the unit of analysis, which offers disaggregated data with greater detail on the local situation; (II) it considers variables that are more adapted to the needs and regional inequalities of an emerging country; (III) it captures local reality with more accuracy by using mainly primary data (observations and interviews) as a source of research; and (IV) it offers the possibility to use the model for destination management.
CHAPTER 7

7 FINAL CONSIDERATIONS

7.1 INTRODUCTION

The central objective of this thesis was to propose a model to measure the competitiveness of tourist destinations, one which is applicable to the reality of Brazilian cities and which serves as a tool for tourism managers to manage and monitor tourist destinations.

In order to achieve this goal, a literature review, which focused on the identification of key elements that influence the competitiveness of a destination at the local level, was performed and from these elements primary and secondary indicators were developed to measure competitiveness. From these elements and indicators, a model that measures qualitative information was built. This model was applied to 15 cities, whose results indicate the statistical validity of the model, and the level of competitiveness achieved by the 15 cities surveyed for the 13 dimensions of the study on a scale of 0 to 100 points, according to the strengths and weaknesses of cities in terms of their touristic competitiveness.

By breaking down the research conducted in this thesis, it is possible to extract the theoretical contributions to the field of competitiveness of tourism in cities as well as contributions to the management and monitoring of these tourist destinations.
7.2 THEORETICAL CONTRIBUTIONS

The phenomenon of competitiveness continues to be debated both in academia and in the media. However, the lack of consensus among authors on the definition of the phenomenon is obvious, because each addresses it according to different units of analysis, evaluation criteria and theoretical frameworks. This complexity can lead to conflicts among academics, businesspeople, politicians and managers, which in a reductionist and uncritical analysis can result in errors in resource allocation on the part of governments and businesses.

The models of competitiveness present in the literature suffer limitations as pointed out by Crouch (2007), Mazanec et al. (2007) and Dwyer and Kim (2003). The criticisms of these models come from five sources: (I) the epistemology adopted in the study; (II) the units of analysis; (III) the variables adopted in the models; (IV) the subjectivity/objectivity to define the attributes of competitiveness and the types of data for quantitative/qualitative analysis; and (V) the specific attributes of destinations.

The model for the measurement of competitiveness proposed in this thesis was prepared to meet the particularities of Brazilian tourist destinations and serve as a management tool for the country's cities. Thus, it sought to bridge these five theoretical gaps in the Brazilian case.

(i) **Epistemology adopted** – the need to monitor the results of the competitiveness of Brazilian destinations as well as identify the factors that affect them induces the adoption of a cause/consequence construct to the
detriment of the system in order to define the phenomenon. With this option, it is possible to assess the area and start a historical series about the competitiveness of tourist destinations.

(ii) **Units of analysis** – the choice of the city as the geographical unit of analysis provided greater detail on the factors affecting the competitiveness of local tourism. The city is also the smallest geographically and politically established area where tourists come in contact with the tourist product, making feasible actions of planning, organisation, direction and control. The choice for the city as the unit of analysis is also related to structural competitiveness, as mentioned by Santos (2006) who considers three levels of analysis of competitiveness (systemic, structural and business). From this angle, the destination (the city) is seen as a set of resources whose purpose is to provide stakeholders in the destination with the best conditions for the development of tourist activities.

(iii) **Variables adopted by the model** – the 13 dimensions of competitiveness proposed by the model of this thesis, broken down into 61 variables and 600 questions/indicators, are based on the four models presented in this work, with some variations. The power of diagnostic accuracy and interpretation of local reality achieved was increased using a broader scope of conceptual models by Dwyer and Kim (2003) and Crouch and Ritchie (2005). The weighting system of dimensions and variables from the cause/effect models of Gooroochurn and Sugiyarto (2004, 2005) and WEF (2007, 2009) was also incorporated. The sustainability of tourism was expanded to be composed of three specific dimensions (Social, Environmental and Cultural), whose goal is to verify the
degree of inclusion of local populations by means of tourist activities and their impacts on tourist attractions. Finally, specific variables for researching developing countries were included.

(iv) Subjectivity/objectivity to define the attributes of competitiveness and the types of data for quantitative/qualitative analysis – this research was oriented by the concept of competitiveness. From this perspective, the experience perceived by the tourist was translated by indicators, whose data collection occurred by direct observations and interviews, and only complemented by secondary data. Thus, subjective information for the operationalisation of the competitiveness of Brazilian cities was quantified in order to capture competitiveness in an objective a manner as possible. Consequently, this study became innovative for prioritising primary data collection obtained from destinations to the detriment of secondary data and for combining qualitative and quantitative research.

(v) Characteristics of destinations – the particularities of Brazilian cities and large differences among them were two of the premises that motivated this work. The results of the research show great differences between capital cities and non-capitals, indicating that the competitiveness of destinations may be associated with their levels of development. Therefore, the measurement model for regions with large differences of development should provide a comprehensive analysis and the most direct contact possible with local reality. A model of this type would possess an extensive set of variables/indicators whose unit of analysis would be a relatively small field to
obtain with acuity the phenomenon of competitiveness, as described in items (II), (III) and (IV).

7.3 MANAGERIAL CONTRIBUTIONS

Managing tourist destinations has become a challenge for DMOs, which require precise tools to administer the various factors affecting tourist activities. It thus makes sense that the model of competitiveness presented in this thesis can be used for this purpose.

Despite the literature presenting studies of tourism competitiveness by ranking countries with the intention of guiding public policies for the sector, the results of these studies are generic, making it difficult to identify problems that involve the activity at the local level. Accordingly, this work presented detailed findings on the issues that require greater attention from both public and private managers for the sustainable development of tourism.

In terms of an assessment, the model can show errors in the city's environment from organisational, infrastructural, economic, social, cultural, environmental and political points of view, which may influence corrective actions to enhance destination competitiveness. This assessment will also assist public policy development and strategic planning, since the information generated has been analysed according to the dimensions and variables of the model. With the creation of a historical series, the results serve to monitor the evolution of the destination and the impacts caused by tourism in terms of sustainability.
In this sense, the present research has shown that the biggest deficiency in destinations is their incapacity to develop studies of tourism and to monitor its impacts because of a lack of specialist staff in DMOs. For this reason, a model that assesses local competitiveness in a comprehensive and detailed manner will serve as a management tool for local, state or central governments to assess, plan, direct and control cities in order to reach higher levels of competitiveness in tourism.

This study could be replicated in other Brazilian tourist destinations as well as in other cities in countries that are at the same stage of development as Brazil. It could also be implemented by central or local governments, with or without private sector partnerships, who wish to make use of a management tool for the development of local tourism.

7.4 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

All methods of work involve choices that determine a direction to follow. Thus, the limitations of this survey and the methodology used are reflections of these options, but which serve to illuminate other paths that could lead to more research in the future.

The choice of the city as the unit of analysis was fundamental to the development of this study, but it excludes the analysis of the macro environment (economic, social, political), whose forces constantly act on destinations, forcing local stakeholders to adapt to new contingencies. Studies that include the impacts of the macro environment, in the present model, would
increase the capacity to predict these changes and their effects on the competitiveness of local tourism.

As a result of the unit of analysis being the city, we did not obtain microeconomic factors related to companies such as productivity, production and sales volume, production technology and prices. Some of these factors might be incorporated into the model in the future, since the competitiveness of the destination also depends on the performance of the companies in operation there.

By excluding economic analyses from the model, a theoretical organisational framework was selected, specifically the resource-based view. This choice gives the model a static approach, while the complexity of environments in continuous transformation require more dynamic treatment, such as those used by the theory of dynamic capacity. From this perspective, studies that incorporate into the model variables and indicators that obtain the capacity of destination stakeholders to adapt, integrate and reconfigure their internal and external resources and organisational skills would fulfil the requirements of an ever-changing environment.

The efficiency evaluation criterion adopted in this model for measuring competitiveness may be complemented by performance indicators for comparing the efficiency of the destination with the performance of the tourist product provided.
Finally, it is essential to underline that the subjective factors, present in the previous models, are as important as the objective ones. Dwyer and Kim (2003) also suggest that the combination of objective and subjective attributes of competitiveness would be an main issue for future research. The possibility of incorporating qualitative data to the quantitative ones for the structure of a competitiveness index could contribute greatly in determining the global competitiveness of the destination.

7.5 CONCLUSION

The idea of this project emerged from cooperate discussions balancing studies in public management and governance with strategic networks and the general relationships among governments, the private sector and public organisations/agencies. Considering the possibility to find new avenues to measure the level of competitiveness for tourism development, this project was brought into action in order to expand the knowledge already created and build a new model that could be applied at a more general level – the local level – thereby not only influencing future public policy actions and results but also helping public administrations to manage governance issues throughout tourism. Therefore, this research examined competitiveness in the tourism context using destinations already focused on improving their incomes from the travel market.

It has been demonstrated by this thesis that competitiveness is not a new concept but rather a subject of increasing interest among academics, international institutions, governments and private businesses in general. It is
supported by many as an action for deriving economic, social and environmental benefits, based on the idea that governments and companies have wider responsibilities beyond profit and their competitive positions in the market. Recognising and exercising these obligations is often a challenge to the tourist industry.

Informal and preliminary research raised the hypothesis that the tourism sector seemed to have particular and identifiable duties in the competitive field but that the relationship of those actions with the development of tourism at local destinations and their level of sustainability was unclear. From the material researched and specific opinions of market specialists, it was possible to identify that beyond public management, tourism competitiveness is providing fertile ground for dedicated studies, but that it was difficult to highlight specific drivers for these activities. Thus, there was considerable work in the field but a lack of control over regional effectiveness.

Governments are taking a keener interest by asking companies to report their social and environmental matters in order to use successful experiences as pilots for public policies instead of working on customised monitoring processes.

The survey identified that data monitoring is the biggest point of growth in the tourism industry in Brazil. Not just public managers but society in general need to know the impacts of tourism activities and use research and data analysis to increase destination competitiveness.
The priority given to infrastructure has been changing over time. Most of the results of the observations and interviews highlighted an increase in the public management concerns towards the comfort and safety of visitors, while a great number of respondents mentioned they might have larger investments in future years.

On the cooperation side, tourism and tourism-related companies are aware that money alone is not the answer for a sustainable business; they also need more strategic direction on coordinated regional actions.

For local public administration, this model opens a window for a joint operation between federal governments and international organisations, with field interest, in order to promote more equity and sustainability. As a unique platform for competitiveness evaluation in tourism, this model may act not just as a promoter but also as a coordinator of major activities or a network builder in order to transform isolated actions into strong drivers for the development of the tourism industry, starting at the local level. The survey highlighted the need for more directive local operations, while the great majority of destinations had positive answers for the intentions of cooperative operation towards competitive growth.

Given the urgency of the issue, as a new form of organising, it is time for local governments, the tertiary sector, scholars and practitioners in the tourism industry to gain greater insights into competitiveness. In particular, it is important to continuously investigate the results that can have a profound impact on the effectiveness and efficiency of public investments locally. This
research has instigated a program of research to examine governance mechanisms and management tools within destinations with a focus on adaptative and strategic actions.

This research project has emphasised a new role for local public management as a local governance player. Tourism destinations must redirect their business focus towards competitive positioning and bring it into their strategic plans. The increasing amount of competitiveness monitoring may be a great opportunity for public administration in general – including the local level – to raise awareness for a stronger network among tourism-related destinations worldwide.

Economic globalisation and trade liberalisation processes have created a competitive global environment for countries and businesses, making competitiveness an important issue on the public and political agendas of countries.

In this work, the key elements that influence the competitiveness of a tourist destination at the local level have been identified and from them suitable indicators for measuring competitiveness determined. A cause/consequence competitiveness assessment model was described according to these elements, following an assessment criterion for weighted averages. The construct was applied to 15 Brazilian tourist cities.

As a result, it was possible to measure the competitiveness of these destinations and provide tourism managers with a tool for managing and monitoring
destinations, which could be replicated in countries with a similar socioeconomic situation as Brazil.

In addition, and as a reference for future works, it is relevant to highlight that one of the great advantages of building a customised model that explains the competitive levels of underdeveloped cities is that its results provide a general evaluation to be monitored as well as detailed data under each variable analysed. For local managers, this sort of stratified information is as rich as the consolidated data, since they may identify the field opportunities to act directly, using a source of information that, theoretically, was not predicted in their local costs. Local secretariat managers have low budgets and may benefit from studies that extract relevant data for short-term public investments.
REFERENCES


Ladeiras, Ana; Mota, António; Costa, Jorge. Strategic Tourism Planning in Practice: the case of the Open Academy of Tourism. Worldwide Hospitality and Tourism Themes volume 2, issue 4, 2010.


Rosenberg, N. Perspectives on technology. Cambridge: Cambridge University, 1976.


