Challenges to the Development of Tourism Satellite Accounts in Brazil

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1 INTRODUCTION

The economic measurement of tourism arises some additional challenges when compared to traditional activities. Normally the classification of economic activities is based on products' characteristics. However, the definition of the tourism product is based on a temporary condition of the demander: the demander is traveling as a tourist. Tourism products may simply be usual products demanded by tourists. Food services and urban transport are examples of very usual products that might become a tourism product if consumed by tourists.

The definition of tourism is clearly incompatible with the basic concepts and methodology proposed by the System of National Accounting (SNA93). Although in this system there are some definitions that depend of the consumer characteristics, these definitional characteristics as more permanent, such as consumers and producers'

country of residence. The condition of be traveling as a tourist is temporary and is not regularly considered in the SNA93.

In order to describe some special cases, such as tourism, the concept of satellite accounts was developed. A satellite account is, though, a set of economic accounting registries of a special sector within the national economy. It gravitates around the main system of national accounts, thus being called satellite. The satellite account consists on a different way of presenting the economy divided into parts, rearranging the information in such a way that a specific area of concern can be highlighted, without overburdening or disrupting the central national account system.

The Tourism Satellite Account (TSA) aims to compile and present informations about the participation of this sector on a national or regional economy. This idea have been developed and fostered by different institutions, including the UN World Tourism Organization. At least 37 countries (UNWTO, 2009) already have complete or incomplete TSAs. The UNWTO expects that this number will increase fast in the next few years. The TSAs have also been an issue of academic research (e.g., Ahlert, 2007; Calvin & Max, 2007; Diakomihalis & Lagos, 2008, Dwyer, Deery, Jago, Spur & Fredline, 2007; Egon, 2006; Gerd, 2008; Jones & Munday, 2008; Kalin, 2007; Libreros, Massieu & Meis, 2006; Sharma & Christie, 2006; Zhang, 2005).

The Brazilian government has tried to develop a TSA for the country at least since 2001, when the Brazilian Institute of Tourism (Embratur) signed an agreement with the Economic Research Foundation Institute (FIPE) to develop the first TSA in Brazil (Embratur, 2002). This project will be from now on referred as BTSA. The main objective of the BTSA project was to assess the viability of a TSA development in

Brazil. The BTSA intended to identify the information lacks on the national statistics system, serving as a ground to improve this system in order to allow for a reliable measurement of the Brazilian tourism economy in the future. As a result, the study identified several relevant information lacks. In 2005 the Tourism Ministry firmed an agreement with the Brazilian Institute of Geography and Statistics (IBGE) for the development of a TSA. However, up to 2009, most information insufficiencies have not been solved, and Brazil still does not have a new TSA.

This paper presents a brief summary of the Brazilian experience with the TSA, highlighting the main information lacks on the national statistics system, the principal results, and the challenges for the development of future TSAs in the country.

2   BRAZILIAN TOURISM SATELLITE ACCOUNT

The TSA framework is a detailed set of concepts, variables and classifications of tourism related activities. In this framework the final information about the tourism economy is summarized in ten tables:

- Tables 1 to 4: tourism consumption by products and categories of tourism consumption (i.e., inbound, outbound, domestic).

- Table 5: production account, including production of consumption products, intermediate consumption, value added, compensation of employees and gross operating surplus.

- Table 6: contrast and consolidation of tourism consumption and production.

- Table 7: employment in the tourism industries.

- Table 8: tourism gross fixed capital formation.

- Table 9: tourism collective consumption, such as tourism planning, control, and other type of administrative expenditures.

- Table 10: non-monetary indicators, such as arrivals, overnights, hotel rooms, and others.

The BTSA was able to provide estimates for the seven first tables by using the following information sources:

Brazilian National Accounts, which are conducted by IBGE according to the SNA93. This survey provides information about production, value added, consumption, gross fixed capital formation, imports, exports, and other economic indicators, by sector and activity. Unfortunately, this source provides information on an insufficient level of disaggregation by sectors. The figures on this survey were used in the BTSA only as boundaries to the values that were estimated by alternative methods. This procedure was useful to ensure the consistency and comparability of the results to other sectors in the economy.

The Annual Services Survey (PAS), also carried out by IBGE, provides information about the production, value added, employment and other economic indicators related to service activities. The figures are provided according to the National Classification of Economic Activities (CNAE), which is a considerable detailed criteria of classification, allowing for the identification of several tourism related activities. However, there is a relevant deficiency on this survey. The PAS only provides information about officially

constituted businesses, overlooking the informal economy, which is substantial in Brazil.

A special procedure was adopted in order to include the informal economy in the BTSA. The National Household Survey (PNAD), conducted by IBGE, provides data about occupations and income of the households, including informations about informal economic activities. The shares of informality in each tourism related activity were estimated by the comparison of the PNAD and the PAS. Finally, these shares were applied over the original data of the PAS.

Data about the air passenger transport services were directly obtained from the Department of Civil Aviation Statistics Yearbook. This publication provides detailed financial data about all national air companies.

On the demand side, three main information sources were used. The Household Budgets Survey (POF), conducted by IBGE, provides information about the consumption structures of households by regions of the country. The consumption structure is classified in 3.285 groups, including tourism consumption. Although the level of disaggregation by products in this source is not high, these statistics were used as boundaries to the final figures about domestic tourism consumption.

The BTSA also used data of the national domestic tourism survey conducted by FIPE and Embratur in 2001. This source allowed for the disaggregation of the tourism consumption into more specific activities, such as accommodation, transport, food, shopping and others.

Finally, informations from the Brazilian Central Bank balance of payments were used on estimations about inbound and outbound tourism. This source provides the total tourism imports and exports of the country.

3   RESULTS OF THE BTSA

The results of the BTSA showed that the total tourism consumption in 1999 in Brazil was about R$ 51.1 billion[1], what was equivalent to 8.5% of total Brazilian household consumption, or 5.3% of the Brazilian GDP, as shown on Table 1. The expenditure on tourism goods and services within the country was R$ 45.4 billion, what is equivalent to 7.6% of total household consumption or 4.7% of the GDP. The survey also showed that domestic tourism is responsible for the greatest share of internal tourism. Domestic tourism consumption was around R$ 38.8 billion, while inbound tourism represented only R$ 3.9 billion. The outbound tourism was responsible for the consumption of R$ 8.4 billion, from which R$ 5.7 billion were spent on other countries.

[Table 1]

The production of tourism goods and services generated R$ 19.1 billion of direct income, what is equivalent to 2% of Brazil's GDP, as shown on Table 2. Considering both direct and indirect incomes, this contribution achieved R$ 26.3 billion, or 2.7% of GDP. Food and beverage serving services were the most relevant in the Brazilian tourism production, generating around 23% of tourism income. Air and road passenger transport services represent, respectively, around 18% and 17% of tourism product.

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[1] The exchange rate in the end of 1999 was R$ 1.79 = US$ 1.00

Surprisingly, the accommodation services for visitors were at the fourth place on this ranking, representing only 13% of tourism production.

[Table 2]

Tourism was responsible for generating 1.6 million direct jobs, or 2.3% of the economically active population. Around 944 thousand jobs were under an employment contract, what represented 2.6% of total employments of the country, as shown on Table 3.

[Table 3]

4   CHALLENGES TO THE DEVELOPMENT OF TSAS IN BRAZIL

The main challenge on the development of the BTSA was the insufficiency of available informations. Some issues had practically no information available, as in the case of second homes and gross fixed capital formation. The lack of data about the composition of inbound and outbound tourism consumption by products was also relevant. Finally, it was relevant the lack of data about the composition of tourism packages consumed in Brazil.

Nowadays a little additional set of relevant informations for the TSA is available in the country. Regarding second homes, the availability of the 2000 Census, and afterwards the 2007 Population Counting, provided informations about the number of second homes by municipality. No new statistic information about gross fixed capital formation related to tourism became available since 2001. Regarding expenditure on inbound, outbound and domestic tourism, there was a considerable evolution due to the improvement on surveys coming from the Tourism Ministry and Embratur. Since 2004

FIPE was contracted to develop surveys with inbound and outbound tourists. The original sample of 7,200 personal interviews was increased to more than 35,000. The geographic dispersal of the survey was also substantially amplified, achieving 26 gateways of the country. Finally, the collection, treatment and analysis methodologies were also refined. The surveys on domestic tourism were also improved. The national domestic tourism survey was conducted again on 2006 and 2008. Therefore, the database on domestic tourism increased and got more consistent.

Besides the improvements on the national statistics system, the development of TSAs in Brazil is still a challenge. Several relevant statistics are still unavailable or do not have the desired consistency. Substantial investments must be done on the development of basic surveys that can support the TSA. Particularly, the following informations should be taken as priorities:

- Production and employment statistics on a higher level of disaggregation by products
- Tourism consumption statistics on a higher level of disaggregation by products
- Governmental and collective tourism consumption informations
- Gross fixed capital formation informations
- Production and consumption of second homes statistics

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Table 1: Tourism consumption by categories

Category of tourism consumption	R$ million	Relative importance
Domestic tourism consumption	38,794.7	6,5% of total household consumption
Inbound tourism consumption	3,898.2	3,9% of total goods and services exports
Outbound tourism consumption	8,372.7	1,4% of total household consumption
From resident supplier	2,664.9	0,4% of total household consumption
From foreign supplier	5,707.8	5,0% of total goods and services imports
Internal tourism consumption	45,357.8	7,6% of total household consumption
		4,7% of GDP

Table 2: Value added by tourism product and tourism GDP

Products	Total value added	Tourism value added	% of tourism in the total value added	% on the total tourism value added
Tourism characteristic products	32,575.4	16,990.5	52.2	96.9
Accommodation services for visitors	2,267.8	2,267.8	100.0	12.9
Second homes	1,559.6	1,559.6	100.0	8.9
Food and beverage serving services	10,086.5	3,967.2	39.3	22.6
Railway passenger transport services	892.1	3.9	0.4	0.0
Road passenger transport services	7,962.7	2,946.2	37.0	16.8
Water passenger transport services	193.6	24.1	12.4	0.1
Air passenger transport services	3,729.1	3,132.4	84.0	17.9
Support services	2,052.7	1,067.4	52.0	6.1
Travel agencies, tour operators and tour guides	335.3	335.3	100.0	1.9
Vehicle rental	203.2	203.2	100.0	1.2
Cultural, recreational and leisure services	3,292.9	1,483.4	45.0	8.5
Other consumption products				
Retail		424.9		2.4
Services		110.0		0.6
Total value added	32,575.4	17,525.4	53.8	100.0
Net taxes on goods and services production	3,001.6	1,553.7		
Gross Domestic Product	35,577.0	19,079.1		
% of the GDP	3.7%	2.0%		

Table 3: Tourism direct employees

Type of occupation	Tourism	Country's total	%
Ocuppations	1,628,044	71,676,219	2.3
Employees	944,309	36,805,740	2.6
Non-waged jobs	683,735	9,536,333	3.5
Owners	546,389		
Family members	137,346		