

TOURISM SATELLITE ACCOUNT - STATISTICAL METHOD FOR DETERMINING THE ECONOMIC IMPACT OF TOURISM

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Abstract:

The permanent concerns of analysts to determine how accurately the real economic benefits of tourism, not stopping at only the direct costs of international and domestic visitors but to consider their indirect effects have made them believe that tourism statistics are not comprehensive enough. This is both because they fail to provide a concrete or in respect of costs incurred by tourists on their own and to some extent to those seeking semi-organized tourism and because the economic effects of spending tourist receipts go beyond statistics reported by service providers. As a result, the World Tourism Organization (UNWTO) in collaboration with the World Travel and Tourism Council (WTTC), the European Union Statistical Office (EUROSTAT) and other regional statistical bodies initiated the Tourism Satellite Account system, UNWTO recommending its adoption by all countries.

Key words: *Tourism Satellite Account, tourism industry, tourism employment*

JEL classification: E

The analysts' permanent preoccupations of determining as exactly as possible the real economic advantages of tourism – which wouldn't consider only direct expenses of national and national visitors, but which would also take into account the indirect effects – has made them to consider that tourism statistics are not accurate anymore. This is due to the fact that they cannot manage to offer a real image neither of the amount of expenses made by tourists on their own account, nor of those who benefit from the services of a semi-organized tourism. At a certain extent, the lack of accuracy is also due to the economic effects of tourism expenses which exceed the amounts of cash statistically reported by service suppliers.

As a result, World Tourism Organization, in collaboration with the World Tourism and Travel Organization (WTTC) and the European Union's Statistics Office (EUROSTAT), together with other regional statistics organisms, has initiated the Tourism Satellite Account System. The World Tourism Organization has recommended all member states to adopt it. This was the main objective of the international conference regarding the statistics and measurement of tourism's economic importance in Nice, in the spring of 1999.

Tourism Satellite Account is a statistical method which wants to measure the economic impact of tourism, allowing researchers to directly compare the dimension of the tourism sector to that of other domains of a country's economy, in order to acknowledge their influence. TSA has been created in order to assure a methodological unit in defining, collecting, analyzing and interpreting data regarding a specific country's tourism.

In order to assure all necessary information for realizing a complex analysis of the direct and indirect impact of tourism on the national economy, the satellite account

system appeals at a diversified range of information sources. The most important information sources are¹:

Primary sources which include:

- ✓ *Data sources based on visitors*: inquiries regarding households or individuals, inquiries made at customs, in accommodation units or in transportation vehicles used by tourists, referring to daily expenses made/suggested along the journeys; these inquiries are made before and after returning in the country. In order to compare the prices at the communitarian level it has been realized an index of the harmonized consume price; its harmonization factors are based on the journal inquiry – holiday questionnaire.
- ✓ *Data sources based on activity branches*: national accounts, structural statistics regarding companies, directives regarding tourism statistics (the capacity of accommodation units: number of units, rooms and beds, number of tourists, number of nights etc. short term statistics offered by companies), the company's register.
- ✓ *Other sources*: censuses of households and population, health insurance statistics regarding balneary treatments recommendations, transportation statistics, other administrative sources.

In what regards the application of the Tourism Satellite Account in Romania, starting from the WTTC's recommendations, in 2004 appeared the first Romanian Tourism Satellite Account. It uses the data sources existing in tourism: the inquiries made in 2002 by INCDT on 51 tourism units (accommodation units and tourism agencies) for quantifying cash amounts and currency payments from Romania's international tourism, the 2004 INCDT inquiries regarding the quantification of physical and value factors of tourism activities at the level of year 2003, as well as the statistics of the National Institute of Statistics.

The Domestic Gross Product's tourism activity level

The diversity of activities incorporated in the content of the tourism supply, as well as the presence of some of them in the structure of other economy branches, offer tourism the character of an interference branch.

Therefore, tourism plays an important part in the economic life of the world's states; the studies made by the World Tourism Organization in this direction identify and group the effects of tourism in three categories:

- ✓ Effects on the global strategy of a country's development or global effects;
- ✓ Partial effects on national economy, or on economy's agents, sectors, variables and fundamental macro-dimensions;
- ✓ External effects in the social-cultural, physical and human resources fields, with indirect economic results.

Methods of increasing the Domestic Gross Product's tourism activity level

Tourism is considered to be a main activity sphere which uses the resources of a country, region or area in an efficient manner in order to assure its development. The tourism activity has numerous implications in what regards the human environment. The direct and indirect economic effects are obvious, but it is very difficult to measure them. However, on the basis of data extracted from statistics made by national centers of statistics, we can reach various conclusions regarding some direct economic effects (number of tourism workplaces, cash amount etc.) or indirect effects.

¹ The adaptation of tourism's informational system to the requirements of adhering to the European community (Satellite Account). Phase I – Phase II – Satellite Account – international experience, applicability area for Romania, ICTI 2003 paper

Speaking from an economic point of view, tourism is a progress factor which has deep implications on the development of a country. Because it determines the movement of the entire economic circuit by means of its resources, tourism is a main factor of the economic and social system, representing at the same time an important element of the economy's system.

Unlike other activity domains, tourism activity brings national economy numerous advantages:

- ✓ The added value in tourism is superior as compared to other domains, due to the fact that the import of raw materials for this field is insignificant;
- ✓ Tourism mainly uses local raw materials, which are practically inexhaustible;
- ✓ Tourism allows the currency transfer of some material and human resources, which cannot be exploited otherwise;
- ✓ The return course in tourism is advantageous in comparison to other branches, as it is realized as an invisible exportation, the price of the tourism product is not charged with wrapping or transportation costs;
- ✓ Tourism is an important part of internal consume, directly or indirectly implying important amounts of industrial products;
- ✓ Tourism assures a balanced development of all branches of a country, including those which are not considered interesting from a touristic point of view.

The tourism phenomenon is very complex and it has various social, political, cultural and economical implications. The interdependency between its different components leads to creating a new specific branch which cannot be compared to any of the traditional branches of national economies. But, unlike other services supply fields, tourism industry is still an economic branch and its development is highly correlated to the other countries' national economies' development levels and rhythms.

The relationship between tourism development and economical growth is obvious as it trains the request for a series of goods and services, which wouldn't have been produced or supplied otherwise. The structure of tourism expenses reflects the totality of raw materials which compete to the making of the tourism product; the process of incomes increase takes place in these sectors first, then it spreads to other sectors of the national economy, by means of successive entries of cash coming from tourists.

Tourism favors the use of the available workforce and its stabilization, with consequences on the life level. As a complex activity, this sector contributes to diminishing the inter-regional and intra-regional disequilibrium at a local, national or global level: by means of low initial investments we can purchase financial resources capable of determining a chain development of other activities which produce national income and absorb the available workforce. Besides creating workplaces, at a demographic level we register other positive effects, as a result of ameliorating the general infrastructure and the public and commercial services which lead to an improvement of life level.

Tourism creates gross domestic product and contributes to creating the added value; by means of its specific, tourism created added value at a larger extent than other branches.

At a global level, we notice a high interest for quantifying tourism's economic effects at a national, regional or local level. The main world organizations have made efforts in order to standardize and create a common framework for calculating tourism's economic contribution. Its goal is to assure the international data comparability. This common framework is called Tourism Satellite Account, a system which is becoming highly important in many regions and countries.

There are currently two versions of tourism satellite accounts systems which have imposed themselves at a global scale: the version of the Recommended Methodological Framework – the common approach of World Tourism Organization (WTO), The

Organization for Economic Development and Cooperation (OECD), Eurostat and ONU's Statistical Division and the version of the World Travel and Tourism Council. The two versions are the representatives of the public and the private sectors.

In essence, the WTTC/OE version measures the proportion of a country's economic production which is the result of tourism and travels (including both direct and indirect effects), while the first version – expressed from the consume point of view – shows how much do tourists spend or in the case of tourism Gross Domestic Product it shows the amount of added value made directly inside the tourism industry and adjacent branches.

Methodologically, the second version uses the National Accounts System as a basis for its analytical framework, but it focuses on the tourism request which is calculated as a percent of the expenses which form the Gross Domestic Product (personal or business expenses, investments, governmental expenses and goods balance) that can be assigned to tourism and travels. The methodological differences between the two versions derive from the different objectives of the organizations which realize a Tourism Satellite Account. By means of the results, WTTC wants to make governments and the private sector aware of the fact that tourism is the world's greatest welfare and workplaces generator. However, the WTO's vision is to consider the institution which assures a country's official statistics as the main organism responsible of the Tourism Satellite Account implementation. This would ensure data objectivity and wouldn't lobby for the private sector or tourism administration. Therefore, the statistics bureau will measure the dimensions of tourism as any other activity sector according to the principles used in The National Accounts System.

Table 1. Tourism contribution in obtaining the Gross Domestic Product, between 2007 and 2010

Indicators	2007	2008	2009	2010
Tourism's direct contribution to the GDP ² (thousands lei)	6400,0	7800,0	7700,0	8300,0
Tourism's total contribution to the GDP ³ (thousands lei)	16400,0	20300,0	19700,0	20300,0
GDP (thousands lei)	416006,8	514700,0	498007,5	518750,0 ⁴
<i>Tourism's average in creating the GDP</i> %				
- <i>Tourism's direct contribution</i>	<i>1,54</i>	<i>1,52</i>	<i>1,55</i>	<i>1,60</i>
- <i>Tourism's total contribution</i>	<i>3,94</i>	<i>3,94</i>	<i>3,96</i>	<i>3,91</i>

Source: www.wttc.com March 2011

² The contribution of Tourism and Travel Industry

³ *The contribution of Tourism and Travel Economy*

⁴ * - Estimated values

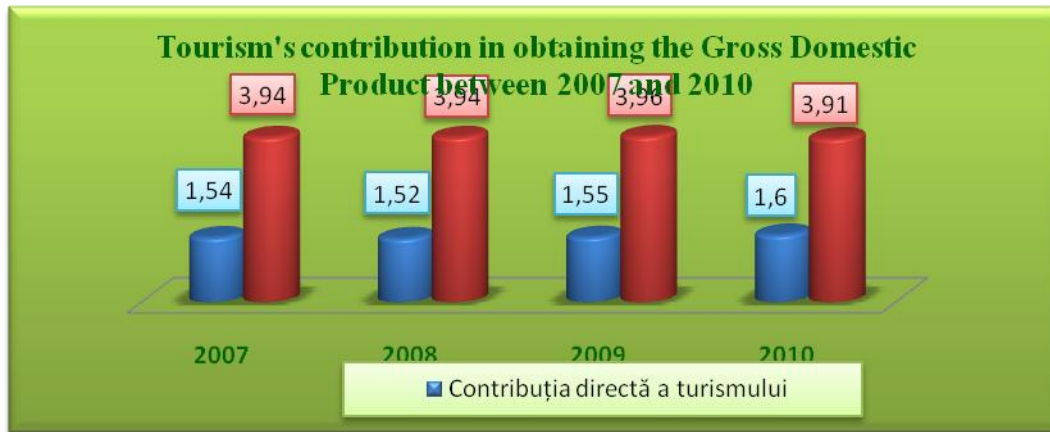


Figure 1 Tourism's contribution in obtaining the Gross Domestic Product between 2007-2010

Figure 1 shows that the tourism activity has an average direct contribution of 1.5% when it comes to GDP.

Tourism's direct contribution in obtaining the gross domestic product implies the commensuration of the results gained by the economic activity generated by hotels, tourism agencies, airline companies and other passengers' transportation services (excepting commutation services), as well as the activities in restaurant and free time spending industry sustained by tourists.

Tourism's direct contribution⁵ to obtain the Gross Domestic Product is represented by the internal tourism consume and the acquisitions of tourism suppliers, including imported goods.

Tourism's indirect contribution⁶ to obtain the Gross Domestic Product contains activities directly related to tourism services and governmental expenses, as well as the capital investments, internal request and indirect expenses generated by imported merchandise, all of them related to tourism industry.

Table 2. Tourism's contribution to workforce occupation between 2007 and 2010

Indicators	2007	2008	2009	2010
Occupation in Tourism and Travel Industry (thousands of persons ⁷)	221,5	225,3	228,8	234,3
Occupation in Tourism and Travel Economy (thousands of persons)	439,1	455,9	450,8	448,4
Total occupied population (thousands of persons)	9353	9369	9243	9152
Tourism contribution to workforce occupation %				
- Occupation contribution in Tourism and Travel Industry	2,37	2,40	2,48	2,56
- Occupation contribution in Tourism and Travel Economy	4,69	4,87	4,88	4,90

Source: www.wttc.com March 2011

⁵ The Contribution of Tourism and Travel Industry

⁶ The Contribution of Tourism and Travel Economy

⁷ According to data received from the WTTC, the measure unit of workforce occupation is referred to as the number of jobs.

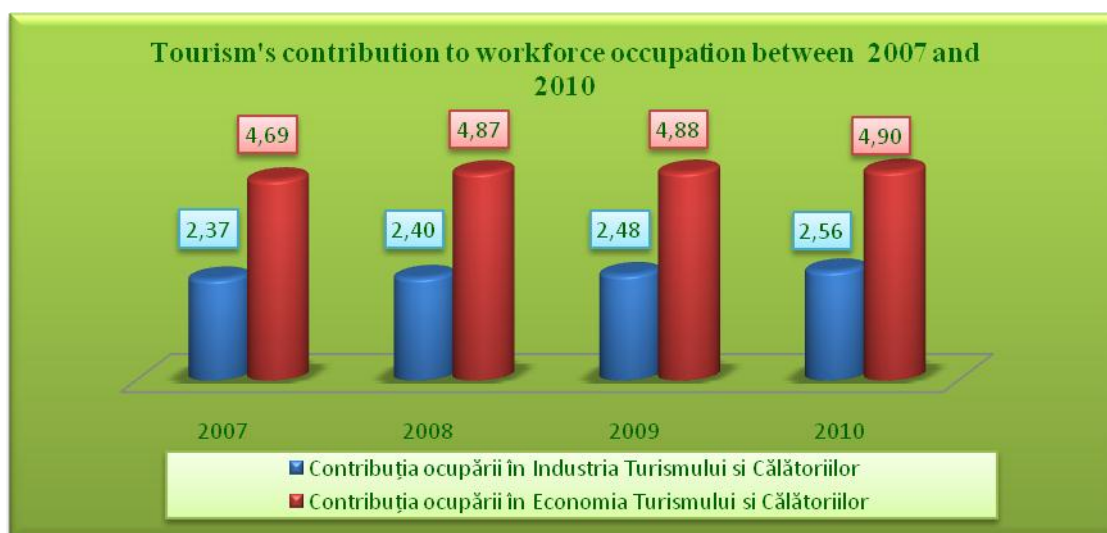


Figure 2 Tourism's contribution to workforce occupation between 2007-2010

In Romania, in 2010, the total occupied population in tourism and travels represents 4.9% of a country's workforce and the direct (permanent) one represents 2.56%. This amounts to approximately 448.000 workplaces. However, this sector is perceived as a last option when it comes to choosing a career and this reflects the low levels of compensation from other branches. This situation should be improved and the salaries should be brought to the level of those from other activity domains, in order for a potential workforce to benefit from getting employed in this activity field. This would also help stopping workforce emigration and encouraging the most professionally qualified Romanian employees and managers to work in their country instead of working abroad. Moreover, there should be set up a training unit in the field of tourism and travels, in collaboration to the private sector. In this sense, assuring the human resource would be more close to the tourism industry, thanks to specialists with practical abilities by means of which they would contribute to obtain high quality tourism products/services.

Tourism industry has generated in 2010 a total of 448.000 workplaces (direct and indirect workplaces), containing:

- ✓ Employing travel agencies;
- ✓ Employing governmental agencies;
- ✓ Employing suppliers.

The first category contains tourism's direct contribution to creating workplaces, and the three categories altogether represent the total number of workplaces generated by tourism industry.

There are 239.000 direct workplaces (2.8% of the total of employees) expected to be generated by tourism industry in 2011. These would include employees in hotels, tourism agencies, airline companies and other categories of transportation services.

Tourism's contribution to the total of employments is expected to be represented by 446.000 workplaces (5.2% of the total), and for 2012 the number is estimated to reach 535.000 (6% of the total).

The analysis of tourism's economic impact

Analyzing tourism's contribution to obtaining the GDP, it can be noticed that the higher percentage belongs to capital investments with approximately 60%, followed by tourism's direct contribution with 38%, and a negative contribution belongs to expenses generated by merchandise imports that contribute to tourist consume, but not directly.

Table 3. The level of tourism activity expenses on categories between 2007 and 2010
– billion lei -

Indicators	Calculation relations	2007	2008	2009	2010
Visitor's exports	1	5,5	7,1	5,4	5,9
Tourism and personal travels	2	8,1	9,4	8,9	9,0
Tourism & Travel Consume	3=1+2	13,8	17,7	14,5	15,1
Imports from tourism and travel industry	4	-7,4	-9,0	-7,7	-7,9
Tourism's direct contribution to GDP	5=3+4	6,4	7,8	7,7	8,3
Internal request	6	5,8	7,1	7,0	7,5
Capital investments	7	8,9	12,1	10,5	10,2
Collective governemntal expenses	8	1,0	1,2	1,2	1,1
Indirect expenses generated by imported merchandise	9	-8,7	-11,6	-10,5	-10,6
Total wages fund expenses GDP	10	3	3,8	3,8	3,8
Expenses made by tourists in foreign countries	11	4,5	6,5	5,8	6,6
Number of stayings overnight in the case of non-resident tourists (millions)	12	1,659	1,393	1,209	1,272

Source: www.wttc.com March 2011

Table 4. The real annual growth⁸ of the main indicators which reflect the tourism activity (%)

Indicators	2007	2008	2009	2010
International tourists' expenses inside the country	-4,9	10,6	-25,7	2,9
Internal expenses	6,9	0,9	-9,1	-2,6
Internal tourism consume	1,8	4,8	-16	-0,7
Acquisitions of tourism suppliers, including imported goods	6,8	3,3	-19,7	-2,8
Internal request	7,3	6,2	-4,5	2,1
Capital investments	25,3	13,2	-21,3	-10,8
Collective governmental expenses	0	7	0,4	-11,5
Indirect expenses generated by imported merchandise	13,3	8,2	-11,4	0,7
Inducted contribution ⁹	9,6	7,5	-2,3	-4,0
Expenses geenrated by tourists who are residents abroad	-9,6	24,9	-14,1	9,5
Arrivals of non-resident tourists	12,2	-16	-13,2	5,2

Source: www.wttc.com March 2011

Table 4 shows that in 2009, besides collective governmental expenses, all the other activities in the field of tourism and travels industry registered significant decreases as compared to 2008. In return, 2010 is characterized by a growth of expenses made by Romanian tourists abroad; it can be also noticed that the number of non-resident tourists' arrivals in Romania increased.

⁸ Corrected with the inflation rate

⁹ It measures the derived effects caused by expenses made by tourism companies' employees and owners, who use a part of their salaries to buy goods from other business sectors;

Table 5. The real annual growth¹⁰ of tourism's contribution in obtaining the GDP and in occupying the workforce % as compared to the previous year

Dynamics rhythm	2007	2008	2009	2010
The dynamics rhythm of tourism's direct contribution to GDP	7,3	6,2	-4,5	2,1
The dynamics rhythm of tourism's economic contribution to GDP	9,2	7,6	-6,1	-1,9
The dynamics rhythm of tourism's direct contribution to workforce occupation	3,5	1,7	1,5	2,4
The dynamics rhythm of tourism's economic contribution to workforce occupation	5,1	3,8	-1,1	-0,5

Source: www.wttc.com March 2011

Analyzing the annual growth of tourism's contribution in what regard the GDP and workforce occupation, it can be noticed that in 2009 there was a decrease as compared to 2008 especially in what regards tourism's economic contribution; in 2010, tourism activity increased with an average of 2% as compared to 2009.

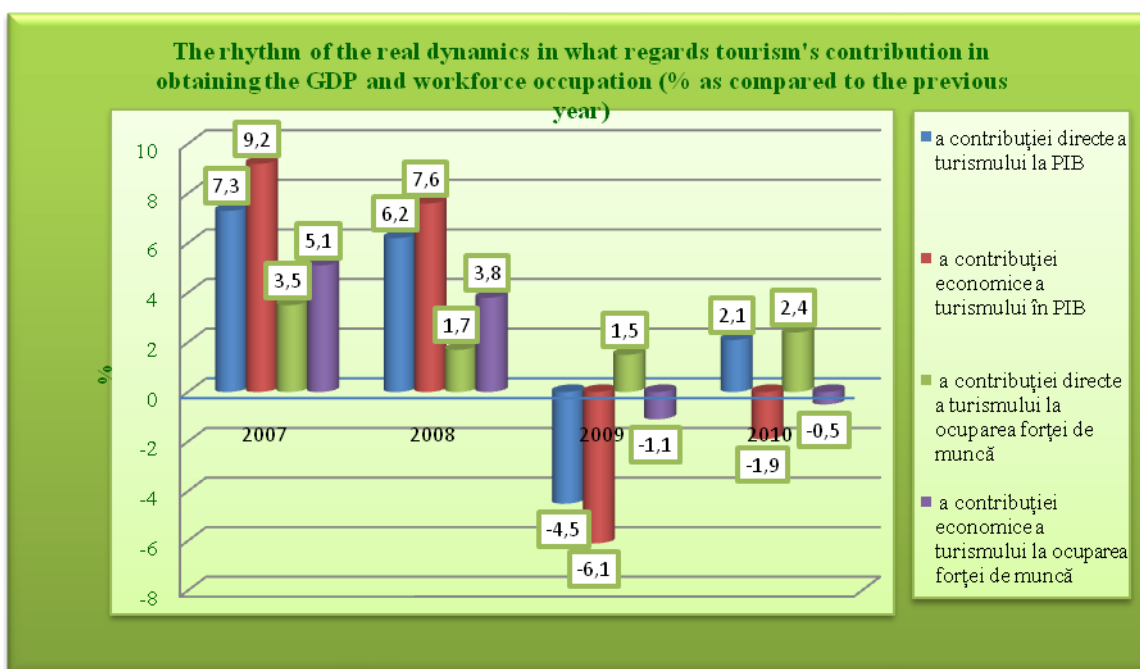


Figure 3 The rhythm of the real dynamics in what regards tourism's contribution in obtaining the GDP and workforce occupation

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¹⁰ Corrected with the inflation rate