A NEW APPROACH TO TOURISM SATELLITE ACCOUNT COMPILATION AN APPLICATION IN REUNION ISLAND

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CHAPTER 8.
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ABSTRACT

In the past, the observation of tourism growth consisted in the description of the visitors characteristics, etc. Nevertheless, without economic indicators in value terms, it is difficult to "sell" tourism as significant activity for an economy and "to compare" its importance with that of other economic activities. The aim of this paper is to overcome this traditional analysis. . On the contrary, we tried to deep inside the economic reality of the tourism activity using the tool of the Tourism Satellite Account adding to the classical framework based on the demand side an alternative way called the supply side approach. Our results show that, despite the absence of some important variables (like inbound expenditures, …), Tourism Satellite Account compilation can still be obtained which increase the useful of this tool. Thus, we have managed to reveal that the contribution of tourism activities to the total value added created in Reunion Island is around 2.6%. This figure can appear lower than we can expect to a small tropical island but it is greater than traditional sectors of Reunion Island's economy such as agriculture or sugar cane industry, and tourism contributes to the diversification of the economy of Reunion Island.

8.1. INTRODUCTION

Over the decades, tourism has experienced continuous growth and deepening diversification to become one of the fastest growing economic sectors in the world. Since 1950, the international tourism arrivals have expanded at an annual rate of 7.5%, growing from 25 million to 880 million travelers in 2009. In the last twenty years, this number doubled

worldwide. Nowadays, the business volume of tourism equals or even surpasses that of oil exports, food products or automobiles. International tourism generates 852 billion US dollars (611 billion Euros) in export and employs more than hundred thousands of people in the world. This spread of tourism in industrialized states has produced economic benefits in many related sectors - from construction to agriculture. By 2020 international arrivals are expected to exceed 1.5 billion people.

Before some developments, the observation of tourism growth consists in the description of the visitors characteristics, of the conditions in which they travelled and stayed, the purpose of their visit, etc. Statistics system of tourism gave only physical data that enable to follow the frequentation of a destination. Indeed, the administrations in charge of the promotion focus on the visitors: their number, characteristics,… . The activities linked to the travel of visitors, such as accommodation, sport or recreational activities, transports and food and beverages, are also observed. Furthermore, one of the main preoccupations of public sector is to measure the inbound tourism, i.e. the activities of a non-resident visitor within the country of reference on inbound trips. Resident visitors are usually left out from of the observation.

However, without economic indicators in value terms, it is difficult to "sell" tourism as significant activity for an economy and "to compare" its importance with that of other economic activities. Tourism satellite account (TSA) gives a description of economic reality of the tourism activity as relevant and as complete as possible. That is why, this paper aim is analyze the structure of a TSA and to propose an alternative approach to its implement. The first section shows the necessity of a tourism economic measurement and the utility of a TSA. The second section makes an overview of TSA methodology developed by the UNWTO. Then, the third section provides the description of this alternative approach, called supply-side approach, because it is based on the production side of the national account. At last, the last section shows the results of this implementation in a French overseas region, Reunion Island.

8.2 METHODOLOGY

8.1.1. Necessity of a tourism economic measurement

Tourism refers generally to the activities of visitors, and their role in the acquisition of goods and services. The focus of tourism statistics is mainly on non-monetary data. Nevertheless, with these types of data, there is no possible common language with the one used in describing other economic activities: without economic indicators in value terms, it is difficult to "sell" tourism as a significant activity for an economy and "to compare" its importance with other economic activities. There is an increasing awareness on the role that tourism plays and can play, directly, indirectly or through induced effects in the economy in terms of value added, employment, etc. These indicators are usually established from a supply side. In tourism, it is a matter of productive activities that appeal mainly to visitors. However, data mostly refer only to so called "tourism activities", i.e. accommodation, restaurants and some recreational activities. They are also not always compatible with the needs of properly identifying the characteristics of tourism activities. Furthermore, in most cases, there is no intent made to compare these data to any type of information concerning demand. The relationship between tourism supply and tourism demand is not straightforward.

Thus, an economic measurement requires going beyond traditional tourism analysis. It has to be in line with similar kinds of economic measurement in other areas. It must create a strong implication between the demand side and supply side. The use of a reference framework such as national accounts (particularly the supply and use framework) is necessary to describe this activity with indicators which help to determine the size of tourism in monetary term.

When you are seeking to describe the weight of an economy, its structure or its operation, it usually turns to national accounts aggregates and the most famous: the Growth domestic product (GDP). Indeed, the National Account gives a description of economic reality as relevant and as complete as possible. The accounting framework of the System of National Account (SNA) allows economic statistics to be compiled and presented in a data format that is designed for economic analysis purposes, decision-taking and policymaking. It also includes a specific framework showing the interface between demand for goods and services and the supply of these goods and services within an economy, namely the supply and use tables (SUT).

The SNA covers all activities in a territory but, sometimes, it is not the most appropriate tool to describe in details some of its aspects such as education, research or tourism. Classifications, which are relevant in general terms, are problematic when analyzing the tourism activity. Specific characteristics of the visitor cannot be made explicit within the core of the SNA. It already is in the SNA but it is scattered. The tourism sector is not measured as a sector in itself in National Account. It is not clearly defined industry in the international Standard Industrial Classification of all economic activities (ISIC), but rather is an amalgamation of industries such as transportation, accommodation, food and beverage services, recreation and entertainment, travel agencies, etc.

In this way, it seems appropriate to develop a specific framework concerning tourism that is now at the centre of the system. The SNA articulation is strong enough so that a great deal of flexibility can be applied (SNA, 2008). A further and more extensive form of flexibility is that of a satellite account. "Its inclusion in the revised SNA represents the maturing of a tool that has been found to add substantial flexibility to a nation's system of accounts" (Grimm, 1991).

The term "satellite" evokes a link between a specific satellite system and the main one, although the nature and intensity of the link itself is specific to each design of a satellite account. In some cases, the link will be very strong. In other cases, the link might be weaker. For instance, in a Satellite Account for transportation, it might be relevant to consider as separate productive activities all the transportation done on own account as ancillary activities. Likewise, a satellite account for the environment will usually include some types of valuation for the destruction of the environment.

Within this perspective, several international institutions such as the United Nations, the World Tourism Organization (UNWTO), the OECD and the Eurostat decided to set up the Tourism Satellite Account (TSA).

8.1.2. TSA Overview

TSA aims

The first recommendation on the development of the TSA conceptual framework was proposed in 2001 with the Recommended Methodological Framework (TSA:RMF) which was updated in 2008. In these guidelines, the accounting framework is designed to measure goods and services associated with tourism according to international standards, concepts, classifications and definitions. The revision of the classification of products (goods and services) and productive activities is one of the main flexibility brought by the TSA to the core of the statistic system. The International Recommendations for Tourism Statistics 2008 provide a list of tourism-characteristic products and tourism-characteristic activities to ensure consistency in the goods and services used in the TSA. The classification refers to products, mainly those belonging to tourism expenditures, and productive activities that are the basis for defining tourism industries.

These recommendations also provide definitions and concepts coming from the SNA which are essential to the understanding of the scope of the TSA. Among them, the difference between the residence of an economic agent and its nationality (is presented as an interest to the tourism). Indeed, a visitor is defined by his living in a country i.e. when they have a centre of economic interest in the economic territory of that country. It answers to most of the interrogations concerning the idea of tourism: the description of tourism consumption according to all forms of tourism; It narrows down the difference between the various demand elements of tourism consumption such as final consumption, intermediate consumption, expenditures on consumer durables or gross fixed capital.

Likewise, TSA consists in analyzing in detail all the aspects of demand for goods and services which might be associated with tourism, in establishing the interface with the supply of such goods and services within the economy of reference, or outside and in describing how this supply interacts with other economic activities. It uses the Supply and Use Table (SUT) as a reference. The SUT is a core table in the System of National Accounts. It presents the resources and uses of goods and services and how products are supplied either as domestic production by industries or as imports. The flow of goods and services is therefore traced from their producers to their users. Eventually, TSA provides macroeconomic aggregates that describe the size and the economic contribution of tourism, such as tourism value added and tourism direct gross domestic product. It is one of the main objectives of the TSA compilation (OECD, 2000).

Set of table

The UNWTO suggests to develop the TSA in the form of ten tables. They are derived from the SUT but they are different due to the presentation and the availability of the required. The first three tables identify the tourism consumption by products and forms of tourism. The table 1 focuses on inbound tourism, the table 2 on domestic tourism and the table 3 on outbound tourism. They describe all the components of tourism consumption: tourism expenditures. They are defined "as the total consumption spending made by a visitor or on behalf of a visitor for and during his/her trip and stay at destination" (Unwto, 2008). They remain close to the concept of household final consumption expenditures in the SNA (apart from intermediate consumption of enterprises). The fourth table leads to the estimation of total internal consumption. It combines domestic tourism expenditures and inbound tourism expenditures. It also includes the other components of tourism consumption such as all imputed services associated with vacation accommodation on own

account, tourism social transfers in kind (individual non market services) and other imputed consumption.

These tables follow the same classification of products. Therefore, three main subgroups are defined: tourism characteristic products, tourism connected products and non tourism-related consumption products. The first one aggregates goods or services which would cease to exist in meaningful quantity or those for which the level of consumption would be significantly reduced in the absence of visitors, and for which statistical information seems possible to obtain. Secondly, connected tourism goods and services include latest are appreciably affected in the absence of tourism. At last, non tourism-related tourism products are those that may be consumed by visitors, incidental to their role as visitors, and are of little interest.

Table 5 is the supply table. Its scope is similar to production accounts in the National Account. Nevertheless, classifications and some treatments are different. It presents (in rows) all goods and services that circulate in the economy of reference and (in columns) which industries produce them. It especially focuses on tourism characteristics industries.

"Table 6 is the core of the TSA system: it is where the confrontation and the reconciliation between supply and internal tourism consumption take place" (UNWTO, 2008). This table gives a description on how this demand is met by domestic supply and imports. It enables to evaluate aggregates like tourism value added or tourism GDP.

The seventh table gives the estimate of employment in the tourism industry. The Table 8 presents the detailed fixed capital formation of the compiling economy of produced fixed assets specific to tourism acquired by the tourism industries and by producers outside the tourism industries. Table 9 suggests a compilation of tourism collective non-market services by type of services and level of government. The last table, Table 10, presents a few quantitative indicators.

The UNWTO recommends countries to focus initially on getting at least the first six tables implemented (and also not to emphasize non-monetary flows of tourism consumption in the initial stages of developing a TSA). Thus, the aim is to estimate the tourism value added and tourism jobs.

The TSA:RMF : A demand side approach

The RMF:TSA defines tourism as a demand side phenomenon referring to the activities of visitors and their role in the acquisition of goods and services. It gives particular relevance to the aggregates that focus on expenditures and consumptions within an economy (RMF:TSA, 2008). Indeed, tourism is demand side activity. It involves that tourism has to be analyzed of standpoint of visitors, notably their purchases. It means that it had to be measured from a demand side approach (Eurostat, 2005). The first step of this approach is to estimate the internal tourism consumption. In fact, it is the core of the measurement of TSA. It is based on specific surveys on visitors trips, their expenditure,… . Completing the RMF-Tables requires available data related to inbound and domestic tourism. Then, the internal tourism consumption is compared to tourism industries and others industries. The share of internal tourism consumption is established for each component of supply concerned. Thus, a tourism portion of gross value added can be associated with the value of part of the output of a productive unit and which tourism direct gross value added (TDGVA) or Tourism direct gross domestic product (TDDGP), with some adjustments.

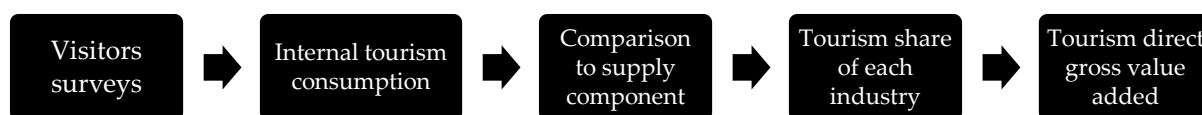The figure 8.1 describes the demand side approach.

Figure 8.1: Representation of demand side approach
Source: the autors

8.1.2. A supply side approach

Why the necessity to develop this approach?

This TSA compilation requires statistics data not only for inbound expenditures but also domestic consumption. Yet, as seen previously resident visitors expenditures are usually left out from of the observation. The lack of this data (or conversely data of inbound tourism consumption) does not allow a direct internal tourism consumption estimate.

Then, tourism valued added is not directly observable. It is estimated based on visitor surveys (OECD, 2000). They have the specialists and policymakers preference because they give the ways for analyzing the links between tourist spending size and several main practical characteristics of tourists trips. Nevertheless, value added refers to the production generated by the supply side in the SNA. Assessing this aggregate from survey breaks up this link although "satellite" in TSA evokes this relationship.

At last, estimates of internal tourism consumption from surveys do not automatically match with National Account data. In France, the administration in charge of TSA compilation has highlighted this drawback. Hotel accommodation services are fully consumed by visitors. Its internal tourism consumption should be equivalent to the total production of this activity. However, in 2005, these expenditures extracted from resident and non resident visitors survey amounted to 9 billion Euros although French national accounted records 15 billion Euros.

Description of supply side approach

The first methodological frameworks emphasize the importance of the reference to SNA. In order to reinforce this link, estimates of TSA components (products and activities) have to derive directly from the data compiled in the SUT. It allows the reconciliation between visitor consumption and the corresponding supply of goods and services. It maintains the logical, accounting and statistical consistency with the SNA (Australian Bureau of Statistics, 1998). Furthermore, there are a multitude of different compilation practices. In the practice of national accounting, gross domestic product is calculated with three approaches (i.e. production approach, income approach, and spending approach) which reflect gross domestic product and its composition from different aspects. According to the statistic system, each country chooses one of them or several approaches simultaneously to estimate GDP. The majority of countries apply the production approach (United Nations, 1999). The statistical sources that are used range from specific surveys and censuses (agriculture, industry, etc.) to business accounts of public and private enterprises as well as administrative sources. TSA have to maintain the link with the approach selected by each country or by the most used: the production approach.

The regional economic account provides input-output accounts, and notably the general supply and use tables (SUT). These tables describe the general economic balance of goods and services and the production accounts of the producers. They thus enable to analyze the link between final demand and industrial output levels, as well as specific tourism transactions hidden in accounts. Commodities are broken down by each industry and by each final use. We tried to respect, as much as possible, this link starting to production estimates of tourism characteristic activities and other activities to visitors consumption. This is why this method is called a "supply-side approach". Producers data are extracted from the supply table of the SUT. It displays an adequate breakdown into activity groups. That detailed level offers the required degree of information to obtain tourism characteristic productions.

The total internal tourism consumption is directly derived from the data compiled in the uses table, taking into consideration the share consumed by visitors. Indeed, in addition to connected or non specific activities, tourism characteristic activities are also consumed by non-visitors. Thus, a tourism share has to be estimated for each one of them. Some activities are totally designed for visitors. For instance, the service production of all the accommodation is only consumed by visitors. For these activities, the internal tourism consumption is equal to the final consumption in the SUT. Conversely, the production of food and beverage serving services or retail trade are also consumed by non-visitors. To take this fact into account, the share of visitors consumption has to be measured. Usually, the comparison between the internal tourism consumption and the production of tourism industries and others industries determines tourism ratios for each component of supply concerned.

Estimates of tourism ratios

The lack of data and the voluntary to reinforce the link with regional accounts are compelled to find another solution. Sources and estimates methods can differ from one activity to another. However, we mainly used results of a CSO study of tourism employees. It allows producing tourism share of employment that are applied to define the production boundaries of tourism. Indeed, the CSO developed a methodology which allows estimating the number of direct employment related to the tourism activities for each establishment according different criteria. The aim of this study is to better account spatial effects. Thus, an establishment can be described as "tourism" and its job then recorded as "tourism", according to more or less of its tourism activity and the level of tourism facilities in the municipality .Moreover, the employment seasonality in each activity enables to take into account the surplus of jobs related to the presence of visitors. The methodology also tries to measure the impact of tourism in living areas where there is very little seasonality such as major cities (Paris, Lyon, etc.). In this case, they estimated the number of jobs related to the resident population and, by subtraction, the number of tourism, according to the ratio "employment per population" in similar living areas. The crossing of these criteria permits to define decision rules (cf. figure 1).

Thus, if the industry is not 100% tourism, tourism shares of employment are used, except some cases such as fuel expenditures or sport activities. The ratio is calculated with estimates of visitors (inbound and domestic) consumption reported into the SUT. Non-monetary indicators are also used.

The table 8.1 represents decision rules in terms of tourism employment according the activity and the localization of the establishment.

Table 8.1: Decision rules in terms of tourism employment according the activity and the localization of the establishment

Living area Activity	High level of tourism facilities	Middle level of tourism facilities	Low level of tourism facilities
100% tourism	all employment	all employment	all employment
Highly tourism	Total employment less resident employment	Total employment less resident employment	None employment
Middle tourism	Total employment less resident employment	Total employment less referent* employment	None employment
Low tourism	Total employment less referent* employment	None employment	None employment
No tourism	None employment	None employment	None employment

Referent employment: employment except tourism seasons
Source : INSEE

The main source: an administrative registration

The main source of these works is an administrative registration: the annual declaration of social data (ADSD). The ADSD is a declaratory formality which has to be fulfilled by any enterprise with employees. It is a common document for the social security and the fiscal administration. This database contents information relating to the establishment and its employees. Thus, for each employee the following information is reported: the nature of the employment and qualification, date of start and end of pay period, the number of employed hours, the condition of employment (full time, part-time), the amount of compensation paid, etc. The ADSD field covers all the establishments with employees, except central administrations and the state agents. This administrative obligation existed since 1947, in France, and the CSO used this information since 1970. Usually, the problem with registrations is that they are set up for administrative and not for statistical reasons. However, in this case, it enables to produce robust statistics on wages and employment, notably their characteristics. Employees data are consolidated at the establishment level.

Tourism direct gross value added and internal tourism consumption

Similarly to the National Account, the main purpose of this method is to estimate tourism value added. Tourism ratio enables to estimate a touristic fraction of value added for each activity. The sum of all these portions over all industries is called tourism direct gross value added (TDGVA). Thus: $TDGVA = \sum_{i=1}^{n} Tour_i \times VA_i$, where $Tour_i$ is the tourism share for the activity i and VA_i, the value added of the activity i. To obtain the tourism direct Gross Domestic Product (TDGDP), it is necessary to add to TDGVA, the taxes on production and imports less subsidies on products and imports related to tourism products.

The SUT enables the transition between producers and visitors. It ensures the link with the tourism value added (in basic price) for each activity and the internal tourism consumption (in purchase price) for each product. Both estimates of domestic tourism consumption and inbound tourism consumption derive from the estimate of internal tourism consumption. The repartition between these two components differs from one product to another. The main source used is an inbound tourism survey. Since 1989, the regional agency

of CSO and the regional tourism administration conducted a survey of tourist flows from passengers departing from airports in the island. Its objective is to estimate the numbers of tourists and to know their motivations, their modes of accommodation and their expenditures in accommodation, foods and beverages, souvenirs, etc. Surveys were continuously realized every three days. Thus, 376 flights were surveyed, 21 826 cards collected on average every year. For the products which the inbound tourism expenditures provided this survey, the domestic consumption is obtained by subtracting from internal tourism expenditures. Others sources are also used. Physical indicators give also information about the origin of visitors, who use some tourism characteristic services. For example, hotel accommodation and occupancy surveys record on overnight stays distributed by country of residence of the travellers. At last, in the absence of quantitative data, professional advices can help in this method.

The RTSA contents also tables of physical data and tourism employment. The last one goes beyond the recommendations, in covering employees and self-employed in tourism-dependent industries, not only in tourism industries. Nevertheless, this table of employment tourism has been too much generalized. It cannot allow treating this tourism component as a social phenomenon and a tradeable product on a (labour) market.

The figure 8.2 shows a representation of the supply-side approach

Figure 8.2: Representation of supply- side approach
Source: the autors

8.1.3. Results

Reunion Island is a French overseas region and an ultra-peripheral region of Europe. Born of two volcanic eruptions, the island is a tropical island off the east coast of Africa in the Indian Ocean. The island offers an interesting alternative to the typical tropical getaway. It treats the travelers to a diversity of landscape which includes tropical forests, jagged mountain peaks, lava fields and coastal resort towns. Consequently, Tourism is to gain more and more to gain importance for public deciders. Consequently, it appeared necessary to develop observation tools such as a tourism satellite account.

This approach was applied on data dating from 2005. The internal tourism consumption was estimated at 846 million Euros. On the one hand, it includes non-resident expenditures for and during their trip. On the other hand, it integrates all the resident expenses on the island as well as in enterprises oriented to outgoing tourism and set up on this French region. The transport (by road, water or air) is the first expenditure with 30% of the internal tourism consumption. It is the largest one because Reunion Island is far from its clients who mostly come from mainland France (more than two thirds derive from air transport). Furthermore, the island is mainly visited by car which explains the large place of car rental (22% of transport spending). Visitors spend 242 million euros in retailers, street

markets or directly from producers to purchase goods, in particular gifts, souvenirs and fuel. It represents the second source of spending and it is ahead of the emblematic tourist activities: "hotel and restaurant" (one quarter of the total).

Domestic tourism consumption is estimated at 480 million euros. With 57% of the internal tourism consumption in 2005, it is superior to the inbound one. Reunion Island has a tourism economic model different from the small island developing states such as Mauritius - the nearest island - where domestic expenditures represent only 15 % of the internal tourism expenditures. In fact, this domestic component almost reaches of the average of the 36 European Travel Commission member countries.

The distribution fluctuates between domestic and inbound tourism depending on the activity. Resident visitor expenditures are more significant in travel agencies (75 % of this expenditure is carried out by residents), in retailers (70%) and in food and beverages (55%). Conversely, non-resident visitor expenditures are larger in car rental (81% of rental expenses) and in recreational activities (57%) because it is a further activities during their trip. Sometimes, sport or recreational activities are the vary aim of their trip. Finally, in all of the accommodation, inbound visitors represent 53 % of these service expenditures. This proportion varies according to the accommodation. It is higher in the hotel industry (67%).

In the figure 8.3, we can observe the repartition of expenditures by residence visitors in Reunion Island in 2005.
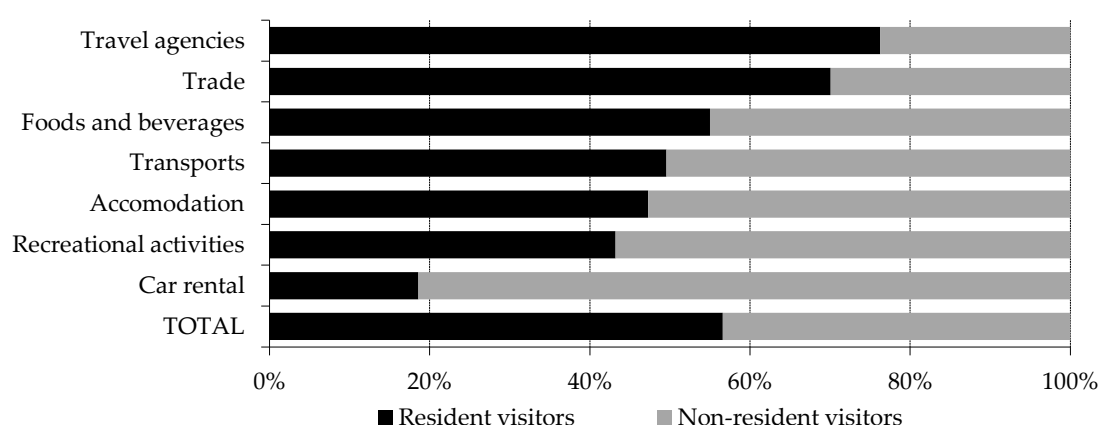

Figure 8.3: Repartition of expenditures by residence visitors in Reunion Island in 2005
Source: CEROM 2009

The tourism consumption structure results from different behaviors according to the visitors' origin. For residents, tourism expenditures are based on two main themes: the desire to vacation outside the island (36% of their expenditure are allocated in transport and travel agencies) and the need to get away while remaining on the island which explains the weight of expenditures on trades (35%). The distance weighs on non-resident expenses. Transport corresponds to 27% of total expenditures. Moreover, the requirement for leisure and business visitors of housing, feeding (food service) and moving around the island leads to greater use of these services (39% of expenditures for non-resident visitors against 23% for domestic visitors).

The direct value added generated by all the activities that provide goods and services to visitors is estimated at 290 million Euros or 2.6% of the total added value created in the department in 2005.

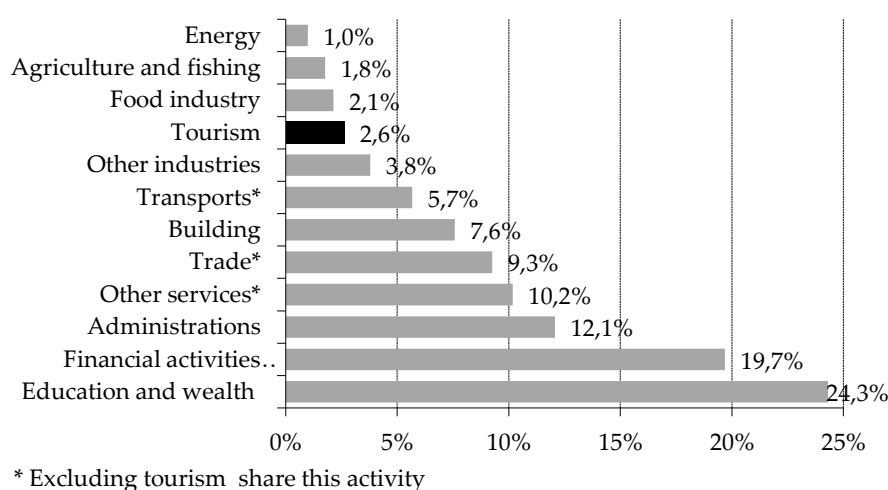In the figure 8.4, we can observe the repartition of value added by industry in Reunion Island in 2005.

* Excluding tourism share this activity

Figure 8.4: Repartition of value added by industry in Reunion Island in 2005
Source: CEROM 2009

Accommodation activity is the largest contributor with more than one quarter of tourism value added. In this application, the tourism share on total GDP was not calculated. Indeed, some tourism activities such as accommodation receive subsidies on investment or on operating expenses. It is difficult to identify exactly their impacts on GDP. Furthermore, taxes on tourism products are depending on the activity. The tourism contribution of wealth creation is lower than some destinations such as Mauritius where tourism represents 11.2% of the GDP. Nevertheless, the tourism industry of the island is undersized compared to the "sister island". For example, in 2008, Reunion had less than one quarter of the hotel room capacity Mauritius had. However, its part to the wealth of the island is greater than the primary sector (1.8%) or the food industry (2.1%). In this way, tourism contributes to the diversification of the economy of the island. It is also the principal export earner. It generates 40% more revenue than the total exports of manufactured goods. Tourism creates 9 000 direct jobs in all the island, i.e. 4% of the total employment.

8.1.3. CONCLUSIONS

The aim of this paper was to propose a new approach to tourism satellite account with an application in Reunion Island. In fact, our motivations were to overcome the traditional analysis of tourism based on observation of tourism growth and the description of the visitors characteristics, etc. On the contrary, we tried to deep inside the economic reality of the tourism activity using the tool of the Tourism Satellite Account adding to the classical framework based on the demand side an alternative way called the supply side approach. Moreover, this work put a new light on the tourism strategy employed by Reunion Island.

This article can open new researches. In the first, it is necessary to investigate on the share of tourism of each tourism activity to evaluate their robustness. Secondly, the

comparison with other countries is a second axe of research in order to test our approach to others methodologies. At last, The TSA:RMF does not take enough into account the tourism employment. Its measure in the table 7 of this guideline is not adequate. The employment estimates have to move beyond this picture and to describe the nature of employment, the quality of employees, etc. To remedy at this lack, it is important extend the scope of the RTSA, by including a set of detailed employment tables – an employment module – such as proposed the OECD.

REFERENCES

Australian bureau of statistics (1998). *Australian economic indicators: an introduction to tourism satellite accounts. Australian economic indicators* (Publication no. 1350.0). Canberra: Australian Statistician. Retrieved from http://www.ausstats.abs.gov.au

Alhert G. (2004). *The TSA project in Germany: Results and reactions.* 30th Meeting of the statistical working party of the OECD. Vienna. http://www.gws-os.de/Downloads/gws-paper04-4.pdf

Brasset M., Parain C. and Perrain D. (2009) Reunion Island tourism: a diversified activity, dependant to domestic visitors (Publication no 9). Reunion Island: CEROM-INSEE-IEDOM.

Commission of the European Communities, International Monetary Fund, Organization for Economic Cooperation and Development (OECD), United Nations & World Bank (1993). System of national accounts 1993. Brussels/Luxembourg: Commission on the European Communities.

Commission of the European Communities, International Monetary Fund, Organization for Economic Cooperation and Development (OECD), United Nations & World Bank (2008). System of national accounts 2008. Brussels/Luxembourg: Commission on the European Communities.

Department of Statistics and Economic Measurement of Tourism (2001). The Tourism Satellite Account as an ongoing process: Past, present and future developments. Madrid: World Tourism Organization.

Department of Statistics and Economic Measurement of Tourism (2002). TSA in depth: analyzing tourism as an economic activity. Madrid: World Tourism Organization.

Department of Statistics and Economic Measurement of Tourism (2009). TSA data around the world. Madrid: World Tourism Organization.

Direction du tourisme (2006). *Les comptes du tourisme 2005*. Paris : Ministry of economics

Eurostat (2005). *European Implementation Manual on Tourism Satellite Accounts: Report on the implementation of TSA in 27 EU Member States* (Vol. 1). Luxembourg: European Communities. Retrieved from http://ec.europa.eu/eurostat/ramon/statmanuals /files/TSA_EIM_EN.pdf

Eurostat (2009). *Tourism Satellite Accounts in the European Union: Comparison of methodology and empirical results* (vol 2). Luxembourg: European Communities. Retrieved from http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-09-022/EN/KS-RA-09-022-EN.PDF

Frechtling D. C. (2010) The tourism satellite account, a primer. Annals of Tourism Research 37 (2010) 136–153. doi:10.1016/j.annals.2009.08.003

Franz A. Laimer P. and Manente M. (2005) European Implementation Manual on Tourism Satellite Accounts. Luxembourg: European Communities. Retrieved from http://ec.europa.eu/eurostat/ramon/statmanuals/files/TSA_EIM_EN.pdf

Frent. C. (2009). Some issues on the comparability of TSA aggregates among countries. *Enzo Paci papers* (vol. 6), 263-275.

Grimm, Bruce T. (1991). Satellite accounts in a modernized and extended system of economic accounts. *Business Economics*. Vol. XXVI (no. 1), 58-63.

Instituto nacional de estadística (2004). *Cuenta Satélite del Turismo de España: Nota metodológica*. Madrid: Instituto nacional de estadística. Retrieved from http://www.ine.es/metodologia/t35/metosateln.pdf

Laimer P. and Weiß J. (2006). *Data sources on tourism expenditure. The Austrian experiences taking into account the TBoP requirements.* International workshop on tourism statistics. Madrid.

Libreros M. (2002) Designing the tourism satellite account (TSA), methodological framework. Madrid: World Tourism Organization.

Mertens S. (2004). *Introduction to the satellite account approach*. Seminar on the Satellite Account for the Social Economy. Brussels. http://www.socialeconomy.eu.org/IMG/pdf/2004_04_23_EN_EV_Ann04_mertens1-intro-fr.pdf

OECD (2000). System of National Accounts 1993, Glossary. Paris.

Statistics South Africa (2009). Draft Tourism satellite account for South Africa 2005 (discussion document: D0405.7). Pretoria. Retrieved from http://www.statssa.gov.za/publications/D04057/D040572005.pdf

United Nations Statistics Division, Statistical Office of the European Communities, Organisation for Economic Co-operation and Development & World Tourism Organization (2008). 2008 Tourism Satellite Account: Recommended methodological framework. Madrid: World Tourism Organization.