Nautical Tourism within TSA Framework: Case of Croatia

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ABSTRACT
Different segments of nautical tourism, namely yachting/sailing and cruising can be extremely important tourism products for some countries, particularly those on the Mediterranean. Nautical tourism, as a country specific tourism activity is however given only limited recognition by UNWTO manuals concerning tourism statistics. Neither International Recommendations for Tourism Statistics 2008 nor 2008 Tourism Satellite Account: Recommended Methodological Framework give straightforward guidelines for measurement of yachting and cruising contribution to national tourism/economy. Similarly, there is scarce evidence of deeper economic insights of these two tourism products in both scientific and professional literature.

Taking into account current characteristics of tourism demand in Croatia, with yachting and cruising accounting for significant part of total inbound tourism expenditures, as well as the potential for further development of nautical tourism, the aim of this paper is to present an exercise of nautical tourism measurement within the Tourism Satellite Account (TSA) methodological framework using Croatia as a case study. The paper emphasizes issues in measurement of tourism flows related to facilities accommodating tourists on yachts, such as marinas and ports which service mainly the nautical tourism demand in Croatia. The paper also points out unregistered (statistically) flows related to anchoring outside marinas and ports. A final issue is related to tourism flows (accommodation capacity, number of visitors and overnights, expenditures) on cruise ships. The above mentioned issues rise the necessity of
clarifying concepts and definitions within basic tourism statistics, especially in relation to tourism statistics being utilized for policy development and for international comparison of nautical tourism figures and its contribution.

The paper suggests and discusses the treatment/methodological approach to nautical tourism in TSA tables concerning internal consumption and production demonstrating the TSA results. Compiling the TSA for Croatia for 2011, nautical tourism appeared as a significant tourism product/activity, a fact not readily recognized within the standard structure of TSA tables.
Introduction

Terminological confusion caused by a lack of internationally adopted definitions plagues the use of terms ‘nautical tourism’ or similar/related such as ‘marine tourism’, ‘sailing tourism’ or ‘yachting tourism’. Some authors define marine tourism and nautical tourism as synonyms (Orams, 1999; Luck, 2005), while others relate nautical tourism just to sailing and motor yachting (CAEB-IBATUR, 2002; Barnaba, 2002) stressing the use of boat not as a mean of transportation but rather as a mean which constitutes the experience of boating/sailing (Benevolo, 2011). The issue of defining nautical tourism attracted the attention of tourism scholars in Croatia as well, with proposed definitions ranging from nautical tourism including unregistered boats or commercial passenger ships, to those that define nautical tourism as all types of water related activities, or to those limited to sailing and staying of tourists on boats (Horak, Marušić, Favro, 2006).

Starting from the definition of nautical tourism as a tourism product comprising different activities and products/services related to the boating experience as the main focus of interest/motive of tourists on personally owned or chartered vessels or on cruisers, the paper suggests and discusses the treatment/methodological approach to nautical tourism in TSA tables concerning internal consumption and production, demonstrating the TSA results. The motivation for the paper stems from the process of compilation of the TSA for Croatia for 2011, when nautical tourism appeared as a significant tourism product/activity with its visibility being lost in the standard structure of TSA tables.

The paper has six parts. Following the introduction, the second section deals with characteristics of nautical tourism in Croatia. The third part reveals the relevance of TSA and its main concepts which are further explored in the fourth part in which methodological issues that arise in process of compilation of TSA in circumstances of developed nautical tourism are discussed. The fifth section focuses on a case study of Croatia and its tourism macro aggregates with special emphasis on implications for nautical tourism. The last part examines possible directions for future work on the TSA in circumstances where it is desirable to focus on special tourism products such as nautical tourism.

Nautical tourism in Croatia

As a Mediterranean country, Croatia is internationally recognized for its long rugged Adriatic coastline and 1,246 islands, islets and rocks (Duplančić Leder, Ujević, Ćala, 2004) of which
forty seven are inhabited. The length of the coastline is 6.3 thousand km, of which 30% in on the mainland and 70% on islands. The attractiveness of the area for nautical tourism is additionally boosted by a number of preserved medieval towns, several with UNESCO world heritage sites, four national parks accessible by boat, a great variety of landscape, a mostly pristine environment and proximity to major tourist generating markets from which Croatia is easily accessible.

Nautical tourism in Croatia comprises two major tourism activities: yachting and cruising. Yachting relates to navigation and stays on boats/yachts without a pre-determined itinerary, while cruising refers to travel on larger vessels with a professional crew and implies a pre-determined itinerary.

**Yachting tourism**

There are 106 nautical ports on the Croatian coast, of which 67 marinas (including 14 land marinas) with 16,940 moorings in 2013 (CBS, 2014a). Permanently moored vessels in 2013 amounted to 13.7 thousand, with majority using water moorings (84.5%). Additionally, nautical ports accommodated 182.9 thousands vessels in transit. The number of vessels in transit is highly seasonal with 83% recorded during four summer months. Total number of vessels involved in yachting tourism in Croatia is even bigger as vessels can be moored or anchored in numerous town/public ports along the coast/islands or even out of marinas and ports. This part of the demand is still not statistically registered.

According to a longitudinal survey on Attitudes and Expenditures of Yachting Tourist in Croatia, most recently conducted in 2012 (Institute for Tourism, 2013a), about half of yachtsmen were in charter (vessels hired in Croatia) while others were on their own or vessels owned by friends and relatives and 3% of yachtsmen were on vessel hired abroad.

On average, yachtsmen realized 12 overnights during their journey, of which, 7 overnights on average in marinas, and 5 in town ports and outside marina or ports. Their average daily expenditure (excluding travel expenditures to/from departing port) is estimated at 100 Euro.

**Cruise tourism**

Cruise tourism in Croatia is realized on international and domestic/national cruise ships. International cruise tourism includes cruising on the Adriatic Sea and on the Danube and Drava rivers, provided by international operators, as multi-country itineraries, mostly on mega-
Domestic cruise tourism is in general related to multi-day cruising in Croatian territorial waters only, on vessels carrying up to 50 passengers (Pranjić, Marušić, Sever, 2013). Croatia recorded 828 calls of international cruise ships with 1.2 million passengers in 2013 (data refers to the first port of call in Croatia; CBS, 2014b), of which 60% is realized in four summer months indicating lower level of seasonality compared to yachting and tourist accommodation facilities. The majority of cruise tourism activity is realized in Dubrovnik, one of the most important Mediterranean cruise ports of call (Marušić, Sever, Ivandić, 2012). According to 2006 survey on Attitudes and Expenditures of Cruise Ship Visitors in Croatia (Institute for Tourism, 2006), visitors from international cruise ships spent 39 Euros on average in Croatian destinations, of which half on shopping, about quarter on food and beverages in restaurants and the rest on organized trips/sightseeing and other.

Domestic cruise tourism is still out of scope of official statistics. According to ad hoc research conducted in 2009 (Institute for Tourism, 2010a), 111 vessels provided services of multi-day cruising realizing almost 1.5 thousand cruises with almost 30 thousand passengers and 207 thousand overnights. The average expenditure of tourists on these ships was 950 Euros per journey, of which almost three quarters was cost of the cruise.

River cruising in Croatia is much less developed than sea cruising. In 2013 about 30 thousand passengers on around 230 ships visited Croatian river ports along the Danube and Drava rivers. A survey on consumption of river cruise visitors in 2013 (Institute for Tourism, 2013b) estimated average daily on-shore expenditures in the amount of 23 Euros, including expert estimation of remuneration to local agencies for organization of shore excursions.

**TSA framework**

As a part of the System of National Accounts [SNA], Tourism Satellite Account [TSA] provides, through a system of concepts, classifications, definitions, tables and aggregates, a ‘cook book’ for the measurement of direct contribution of tourism to the national economy. As “the only definitive measurement of tourism” (TTF, 2009, p.4), TSA overcomes the methodological issues arising from demand driven nature of the tourism industry.

Despite of the methodological framework inaugurated by key international statistical organizations (Tourism Satellite Account: Recommended Methodological Framework 2008 [TSA:RMF 2008], United Nations, World Tourism Organization, Eurostat – Commission of
the European Communities, Organisation for Economic Co-operation and Development, 2010), TSA compilation still greatly differs between countries (Eurostat, 2009, 2013), with differences ranging from methods of estimation of internal tourism consumption to definition and scope of tourism industries/products. TSA potential benefits are numerous (Frangialli, 2006) including policy formulation, promotion of cooperation between stakeholders and marketing, to the improvement of environmental accounting and tourism statistics overall. Despite present widespread use of TSA (Libreros, Massieu, Meis, 2006), and even its extension to regional levels, it is still possible to raise questions as to the extent these potential benefits of TSA for strategic and operational management on both public and entrepreneurship levels are truly taken advantage of.

It is important to note that while the tourism industry is heavily under pressure of product diversification and market segmentation, TSA gives only aggregated data for tourism activity as a whole, not recognizing specific tourism products such as sun and beach, cultural, business, sport tourism, etc. Namely, since TSA framework considers tourism as a set of production activities led by demand created by visitors, its main focus is on linking products and services consumed by visitors with their production. The products and services are aligned with Central Product Classification [CPC] while tourism industries are in accordance with International Standard Industrial Classification of all Economic Activities [ISIC].

Furthermore, the aggregated TSA approach can mislead the international comparison of TSA results when there are significant differences in tourism product mix and especially in cases when tourism products differ in expenditure patterns. Nautical tourism is such an example of a tourism product with a different structure of products and services expenditure as compared to many other tourism products based on stays in accommodation facilities.

**Nautical tourism within TSA framework: Methodological issues**

TSA:RMF 2008 has brought clarifications of concepts of tourism expenditure and tourism consumption and has introduced solutions for dealing with some special issues such as the meetings industry which was not mentioned in TSA:RMF 2000 (Commission of the European Communities, Organisation of Economic Co-operation and Development, United Nations, World Tourism Organization, 2001). Thus, the 2008 version recognizes the meetings industry but considers it as marginal, as its output is not acquired by visitors. In general, specific tourism products and their characteristics are not in focus of TSA:RMF 2008 and it does not provide an
analytical framework for measuring relevant economic characteristics of tourism according to main purpose of a tourism trip (e.g. holidays, leisure and recreation, visiting friends and relatives, education and training etc.), nor according to types of tourism products (such as sun and beach, cultural, business, sport tourism or nautical tourism). Despite of growing interest, there is no statistical international recommendations regarding tourism products because tourism products are not ‘sufficiently characterized in a uniform way’ (International Recommendations for Tourism Statistics 2008 [IRTS 2008], p. 28, United Nations, World Tourism Organization, 2010). With respect to nautical tourism, in addition to parts that deal with classification of activities (ISIC) and products (CPC), some concepts related to nautical tourism have been mentioned throughout the TSA:RMF 2008, as well as in IRTS 2008. The following table demonstrates coverage of specific elements (activities and products) of nautical tourism in TSA:RMF 2008 and IRTS 2008.

Table 1: Elements of nautical tourism in activity/product classifications and main tourism statistics methodological manuals

<table>
<thead>
<tr>
<th>Activity/Product and classification</th>
<th>TSA:RMF 2008</th>
<th>IRTS 2008</th>
</tr>
</thead>
</table>
| Marina (docking and mooring facilities) | • ISIC: part of sports and recreational activities (9329)  
• CPC: part of other amusement and recreation services (96990) | • Part of gross fixed capital formation | • Not mentioned |
| Other nautical ports (docking and mooring facilities) | • ISIC: part of support activities for transportation (5222 Service activities incidental to water transportation)  
• CPC: part of port and waterway operation services (67511) | • Part of gross fixed capital formation | • Not mentioned |
| Yacht (boat, sailboat) | • Number of arrivals and overnights by modes of transport (non-monetary indicators, TSA Table 10)  
• Tourism single-purpose consumer durables  
• Part of gross fixed capital formation | • Yachters and crew are inbound visitors  
• Mode of water transport  
• Non-monetary information on rental of vehicles (number of available vehicles and vehicle-days, and number of actually rented vehicle days), |
| Cruise (ship) | • Part of gross fixed capital formation | • Cruise ship passengers and crew are inbound visitors |
**ISIC**: renting of pleasure boats with crew is part of sea and coastal as well as inland passenger water transport activity (5011 and 5021),

**CPC**: coastal and inland cruise is part of water passenger transport services (64232, 64122)

<table>
<thead>
<tr>
<th>Charter (yacht charter without crew)</th>
<th>Not mentioned</th>
<th>Mode of water transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISIC: part of renting and leasing of recreational and sports goods (7721)</td>
<td>Passenger services include rental, charters and leases of vessels with crew</td>
<td>Passenger services include cruise fares that are a part of package tours</td>
</tr>
<tr>
<td>CPC: part of leasing or rental services concerning pleasure and leisure equipment (73240).</td>
<td>Operational leasing services include time charters without crew</td>
<td></td>
</tr>
</tbody>
</table>

Source: International Standard Industrial Classification of All Economic Activities (ISIC); Central Product Classification (CPC); Tourism Satellite Account: Recommended Methodological Framework 2008 (TSA:RMF 2008); International Recommendations for Tourism Statistics 2008 (IRTS 2008).

It can be concluded from Table 1 that key elements of nautical tourism are recognized in both activity/product classifications and in main tourism statistics methodological manuals. While activity/product classifications regulates all segments of different types of nautical products, the tourism statistics manuals deal with the issue mostly from the point of non-monetary indicators. Beside the stated need to obtain number of tourist arrivals and overnights by mode of transport there is no any explanations or further recommendations how to measure those indicators. Moreover, there is no clear concepts of tourist arrivals and overnights relating to usual environment and second homes. Similarly, problem arises in estimation of number of overnights of yachtsmen using non-commercial moorings or those on anchor outside the marinas/ports. Some scholars also pointed out problem of permanent moorings, both of locals and tourist (Benevolo, 2011).

Activity/product classification of the key elements of nautical tourism allows comparison of expenditure patters of nautical tourist and those using ‘normal’ accommodation facilities. Nautical tourism is characterized by a specific structure of tourism consumption product expenditures, making it significantly different from the majority of other tourism products. As shown in the Table 2 which contains data for Croatia in 2011, the structure of tourist expenditure significantly varies not only between nautical tourist and tourist using paid accommodation facilities but also between three types of nautical tourists: yacht tourist on own/friends and relatives vessels, yacht tourist on rented/chartered vessels and tourist on multi day cruises in Croatia. Namely, particularly important segments of yachting tourist expenditures are
expenditures for sport (berths in marinas), renting and leasing (renting of yachts and recreational boats) and transport services (renting yachts with crew, berths in public ports), as well as expenditures for other consumption products such shopping, fuel etc. Tourist on multi day cruises in Croatia organized by Croatian service providers, spent mostly on transport services (cruise fare), food and beverage services and other consumption products. Nautical tourists had almost no expenditure for accommodation services, this being the item accounting for nearly half of the expenditures of tourist using paid accommodation facilities.

Table 2: Structure of average inbound tourist expenditures (without expenditures for transport cost to and from destination) by product and services for Croatia in 2011

<table>
<thead>
<tr>
<th></th>
<th>Tourist in paid accommodation facilities</th>
<th>Nautical tourists</th>
<th>Yachting tourist</th>
<th>Toursists on multi-day cruise in Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Consumption products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Paid accommodation services for visitors</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
<td>100,0</td>
</tr>
<tr>
<td>2. Food- and beverage-serving services</td>
<td>24,7</td>
<td>25,4</td>
<td>12,6</td>
<td>28,5</td>
</tr>
<tr>
<td>3. Passenger transport services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Transport equipment rental services</td>
<td></td>
<td>58,1</td>
<td>0,0</td>
<td></td>
</tr>
<tr>
<td>5. Cultural, sports and recreational services</td>
<td>8,2</td>
<td>19,7</td>
<td>9,5</td>
<td>4,0</td>
</tr>
<tr>
<td>A.2 Other consumption products</td>
<td>17,8</td>
<td>54,1</td>
<td>19,3</td>
<td>27,6</td>
</tr>
</tbody>
</table>


When some products with specific expenditure patterns are of special importance for national tourism, significant differences found in their expenditure structure might be the cause of misleading conclusions in the analysis of the importance of tourism specific products and activities on aggregated level. Similarly, misleading conclusions can be made in international comparison of the structure of tourism consumption. This requires special attention of tourism policy makers and perhaps looking for solutions outside the internationally accepted TSA methodological framework. In response to this challenge there have been attempts for compilation of specific satellite accounts for maritime tourism or yachting (Diakomihalis, Lagos, 2008; Diakomihalis, 2006)

Case of Croatia

Croatia has acquired significant experience in TSA compilation during last ten years. This work has been enabled by improvements of the Croatian system of tourism statistics which have been taking place since the early 2000s (Horak, Marušić and Radnić, 1999; Institute for Tourism, 2003) and the assessment of the feasibility of TSA compilation (Institute for Tourism, 2007).
An experimental TSA for Croatia was compiled for 2005 and 2007 (Institute for Tourism, 2008; 2010b) while the first TSA was developed for 2011 (Ivandić, Marušić, Šutalo, Vuglar, 2014). During that time, specifics of nautical tourism and problems of gathering relevant, accurate and reliable data on monetary and non-monetary aspect of nautical tourism have always been in the focus of the team working on the compilation of tourism satellite account for at least two reasons. Bearing in mind the characteristics of Croatia as a Mediterranean nautical tourism destination, the first is related to availability of data on expenditure of nautical tourist and production of activities that create tourism product, as specific tourist interest/motive. Second reason relates to the problem of placing nautical tourism in the standard framework of satellite account and deciding whether to incorporate specific aspects of nautical tourism into the concept of ‘standard’ TSA products and activities or to try to extract them into one or few ‘country-specific tourism characteristic services’.

An attempt at finding a solution, or at least a partial solution, for the first problem was in conducting of a few surveys on expenditures of different segments of tourists (national multi-day cruises, yachting) which, in combination with available data from secondary sources of official statistics and maritime regulators (turnover of nautical ports and charter companies, number of navigation permits), enabled the compilation of expenditure data for main demand segments of nautical tourism. But, as the level of development of national accounts in Croatia did not enable extraction of nautical tourism specific activity from two level ISIC aggregates, it was necessary to defer to the solution of inclusion of nautical tourism product/activities into the standard TSA structure. Consequently, this resulted in the loss of opportunities for analysis of direct contribution of nautical tourism to Croatian tourism and to Croatian economy in general. This is especially important as (Table 3) nautical tourism generates 11.9% of total inbound tourism expenditure of Croatia (without expenditures for transport to and from destination) with significant influence on it product/service structure.

The share of nautical tourism products and services in paid accommodation services is decreasing (for 4.2 percentage points or 12%), while their share in transport equipment rental services and cultural, sports and recreational services is increasing. Transport equipment rental expenditures in nautical tourism is generated by charter/boat rental services. It should be noted that car rental services are not relevant for Croatian tourism, despite Croatia being mainly a car destination, and are therefore treated within other consumption products. The increase of
cultural, sports and recreational services (for 0.8 percentage points or 19%) is due to mooring services in marinas.

Table 3: Inbound tourism expenditure (without expenditures for transport to and from destination) by product and services for Croatia in 2011

<table>
<thead>
<tr>
<th>Product/Service</th>
<th>Tourists in paid and non-paid accommodation facilities</th>
<th>Tourists in nautical tourism</th>
<th>Total tourists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>billion Euro</td>
<td>%</td>
<td>billion Euro</td>
</tr>
<tr>
<td>A. Consumption products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Paid accommodation services for visitors</td>
<td>1,787.5</td>
<td>35.4</td>
<td>0.0</td>
</tr>
<tr>
<td>2. Food- and beverage-serving services</td>
<td>1,338.0</td>
<td>26.5</td>
<td>130.9</td>
</tr>
<tr>
<td>3. Passenger transport services</td>
<td>0.0</td>
<td>11.3</td>
<td>1.7</td>
</tr>
<tr>
<td>4. Transport equipment rental services</td>
<td>0.0</td>
<td>190.6</td>
<td>27.9</td>
</tr>
<tr>
<td>5. Cultural, sports and recreational services</td>
<td>209.2</td>
<td>4.1</td>
<td>73.4</td>
</tr>
<tr>
<td>A.2 Other consumption products</td>
<td>1,711.3</td>
<td>33.9</td>
<td>278.0</td>
</tr>
</tbody>
</table>


The structure of Croatian TSA is characterized by the importance of other consumption products (35% of the overall inbound tourist consumption). This item, as a result of the structure of Croatian tourism demand (mainly car destination, households and camps as dominant type of accommodation facilities, important role of second homes and friends and relatives accommodation), consists mainly of expenditures in retail (for food and beverages as well as fuel) and highway tolls. Expenditures for nautical tourism products and services additionally contribute to this item due to maintenance costs and skipper costs.

Conclusion

Since the TSA framework does not focus on tourism products as ‘specific packages’ comprised of different activities and products/services reflecting specific interest/motives, such as cultural, business, sun and beach, sport tourism etc., its international comparability highly depends on country tourism products mix. Nautical tourism is one of those tourism products which can have a significant impact on TSA results as it is characterized by a specific structure of tourism consumption product/service expenditures which is significantly different from the majority of other tourism products (e.g. expenditures for mooring services in marinas treated within sport products/services, boat renting treated within transport equipment rental services, renting yachts with crew and berths in ports treated within passenger transport services). In cases when nautical tourism is an important tourism product for countries, it might cause misleading
conclusions regarding the importance of some of tourism specific products and activities. It is therefore necessary to put special attention on that issue by both tourism policy makers and tourism statisticians. That issue is even more important when compiling regional TSA.

Therefore, further steps require the undertaking of additional activities regarding the improvement of tourism statistics coherence and comparability, as well as accuracy and reliability in regard to definitions and scope of different monetary and non-monetary aspects of nautical tourism. There are several issues that call for additional clarification: treatment of boat/yacht as ‘second home’ and/or accommodation facility in case of boat charter, interpretation of usual environment for those having boat/berth in place of residence, treatment of cost of permanent berth and yearly/regular service and treatment of cost for skipper hired separately from the boat etc. In addition to the need for these clarifications, there is also the issue of measuring different indicators of volume of nautical tourism activity which require internationally harmonized recommendations, i.e. measurement of inbound nautical tourist arriving by boat and not using berths or commercial moorings in nautical ports.

There are also several options to approach TSA compilation for specific tourism products, i.e. nautical tourism, that should be further internationally elaborated and valuated. In the line with Dwyer, Deery, Jago, Spurr and Fredline (2007), higher level of visibility of nautical or any other relevant product can be achieved at least through the following: (i) compilation of a specific satellite account, (ii) extraction of specific nautical tourism product/services into the country specific nautical tourism products/activities, and (iii) extension of ten TSA tables by complementary set of tables describing monetary and non-monetary volume of nautical tourism product. All of the proposed approaches assume internationally harmonized methodological framework as well as adjustments of national accounts data regarding levels of disaggregation of supply side data.
References


