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**TOURISM
IN FUNCTION OF DEVELOPMENT
OF THE REPUBLIC OF SERBIA**

**Tourism product as a factor of competitiveness of
the Serbian economy and experiences of other countries**



**THEMATIC
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II



**UNIVERSITY OF KRAGUJEVAC
FACULTY OF HOTEL MANAGEMENT
AND TOURISM IN VRNJAČKA BANJA**



DIRECT AND INDIRECT IMPACTS OF TOURISM ON ISTRIAN ECONOMY

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Abstract

This paper explores the direct and indirect effects of tourism on the economy of Istria, the region with the strongest tourism industry in Croatia. The research in this paper is based on tourism expenditures, which constitute the basis of all economic effects of tourism, which are multiplied in many branches and activities, contributing to the growth of the economy, especially if the activities in its structure are not dependent on imports and if the structure of the economy is more representative of those factors that directly or indirectly meet the demand of tourist. The goal and purpose of this paper is to explore the effects of tourists' consumption at the level of the Istrian economy and then analyze the structure of economic activity and their dependence on imports in order to confirm the hypothesis that tourism consumption has multiplying effects and that with a favorable structure of the economic activity and their lower dependence on imports can lead to favorable results from tourism.

Key words: *tourism consumption, tourism expenditures, economy of Istria, economic effect, multiplier effect,*

JEL classification: *E 21, Z32*

Introduction

Tourism is an extremely complex economic system composed of a series of fragments of structurally diverse branches and activities of the national and regional economy. From an economic point of view, tourism represents a highly sophisticated integral system within the national economy whose scope and structure goes beyond the economic categories

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of activities, branches, and sectors. Tourism is comprised of interconnected, heterogeneous, dependent and complementary fragments of the various economic branches and activities that together form a logical, functional and balanced system. It is a set of complementary products and services of various industries and activities. The economic effects of tourism are the result of a series of market interactions (Frehchtling, 1999) and their interdependence on a direct and indirect basis.

Tourism expenditure represents the basis of all economic effects of tourism, achieved by its development. Therefore, the goal and purpose of this paper is to evaluate tourism expenditure and analyze its effects on the branches and activities of the economy of Istria. This research suggests that tourism consumption multiplies the effects of numerous branches and activities, contributing to the growth of Istria's economy, where these effects are explored. Ultimately, the hypothesis is assumed that the favorable structure of economic activity and their lower dependence on imports can also have better effects on tourism.

The aforementioned hypothesis is based on a theoretical basis explaining how tourism is made up of numerous branches and activities where products and services directly or indirectly meet the needs of tourists are produced. The expenditure of tourists for consumed products and services achieves consumption that is the basis of economic effects, manifested through branches and activities in the regional or national economy, in the emitting, transitory, receptive regions and countries.

Problems in this paper are approached from the viewpoint that tourism is a complex product that is realized within a number of branches and activities and in which it causes economic effects. The basis of all economic effects of tourism is tourism expenditure. The economic effects of tourism are the changes that arise in the structure of the economy of emitting, transitory and receptive tourist areas and countries.

From an economic point of view, tourism is viewed as a complex of numerous branches and activities in which it causes economic effects. The effects of tourism are based on tourist consumption (Kesar, 2006) which causes changes in the volume and structure of the economy. The tourism industry and tourism sector (Šutalo et al., 2011) define the tourism industry's activities and activities in which tourists spend and cause direct and indirect contribution to the economy. As tourism is an

extremely complex economic system composed of a series of fragments of structurally diverse economic sectors of the national economy, its cohesion within the economy results in numerous economic effects. Economic effects are the result of a series of market interactions and interdependencies on a direct and indirect basis.

Tourism spending is the basis of all economic effects of tourism (Kim et al., 2006, Frechtling, 1999, Kesar, 2008) because without its realization it is not possible to achieve any economic effect stemming from the development of tourism.

Tourism spending refers to different products and services in the preparation and realization of tourist travel and stay in a certain tourist receptive area. It relates exclusively to temporary visitors belonging to a group of non-resident consumers (tourists and hikers).

Tourism spending is realized in three stages:

- in the place of permanent residence in the emitting tourist country (before and after the trip),
- on the way in a transit country (by destination and on return),
- in a tourist destination in a receptive tourist country (or more if it is a season)

In fact, tourism spending is the total consumption of goods and services that a tourist buys or consumes to satisfy primarily his tourist needs, regardless of whether the act of consumption has taken place in the place of a permanent stay of a tourist, during a travel or a tourist destination. From a functional point of view, it represents a discretionary part of personal, final (non-productive) spending intended to meet the needs of individuals related to tourist travel.

It is necessary to differentiate domestic and foreign tourist consumption due to the differences in the economic effects that arise from them, but also because of differences in the analytical (methodological) approach: Domestic tourist consumption is used to redistribute earned income within a national space that migrates from one spatial-administrative unit (for example, a county or a city) to another, which does not significantly affect the GDP of the country.

Foreign tourism spending is used to spill income from tourist emitters into tourist receptive country, based on which significant economic effects are

achieved, especially in terms of GDP growth of the country. The economic effects of tourism are changes that arise in the structure of the economy (Lee, Chang, 2008, Oh 2005) of tourist-emitting, transitory and tourist-receptive areas as a result of tourism trends and tourist consumption and ultimately tourism development. Tourism spending is the basis of all economic effects of tourism (Ashley, 2006, Brida et al., 2008, De Agostini et al. 2005, Fayissa et al., 2009, Singh et al., 2006, Zhang et al. 2008, Kesar, 2008). Tourism through tourism consumption generates general economic growth and development at all levels of the economy. The economic effects of tourism cannot be inspected in isolation because they are inextricably linked with the other effects of tourism development: social, cultural, and ecological (spatial) and other impacts.

The economic effects of tourism are:

- income growth of tourist offer subjects (legal and natural persons) on the basis of realized tourist consumption,
- gross domestic product growth,
- the growth of public revenues from funds collected on the basis of collected taxes and sojourn tax,
- revenue growth from the export of goods and services through tourism (recorded in the current account balance account),
- the growth of direct and indirect employment and restructuring of the labor market (especially regional),
- growth of entrepreneurial activity (small and medium entrepreneurship),
- capital investment (private and public),
- activating non-resourceful resources (transforming into tourism-attractive resources),
- empowering regional development and interregional cooperation,
- encouraging general economic growth and development,
- growth in living standards of the local population, etc.

The economic effects of tourism are measured by physical indicators such as the volume of visitors and overnight stays, and the financial volume of realized tourist spending etc. They are, as a rule, a result of scientifically based estimates rather than precise calculations, which are largely related to approximate. Depending on the purpose of research, measuring the economic effects of tourism can be a highly complex methodological process. Simpler effects are continuously monitored and recorded in

statistical reports, while more complex measures are taken quarterly, annually or occasionally in the framework of special investigations.

Research methodology

The research in this paper is based on primary and secondary sources, and approaches and methods based on the attitudes of domestic and foreign authors. The paper sets out the basic goal of assessing the effects of tourism in Istria, determining its contribution to the economy. The economic effects of tourism in the economy have so far been most frequently explored using input-output analysis in combination with satellite tourism balance (Dwyer et al., 2005, Zhang et al., 2008, Singh et al., 2006, De Agostini et al., 2005, Brida et al., 2008, Kesar, 2008). Since these methods and approaches are attributed to static and incomplete illumination of the effect of tourism consumption in the economy, others are used, among which the general equilibrium method with a dynamic approach, which is computationally complex and demanding in terms of providing the necessary data.

The input-output analysis conducted for the Croatian economy in 2005 (Šutalo, et al., 2011) was used in this paper to determine the impact of tourist consumption of tourism in Istrian economy. By adjusting and linking the earnings data by activities, the basis for the estimation of contributions was made using Leontief's inverse ($I-A^{-1}$), whose coefficients were adjusted for Istrian economy and taken from work (Šutalo et al., 2011).

For the purposes of this study, data on visitors and nights spent and financial indicators on the movements of income in certain activities were used. The data for this survey are taken from four sources: a) from the records of revenues (GFI-POD 2015, HGK ŽK Pula processing), b) number of tourists and overnight stays from the publication (Press release, Central Bureau of Statistics of the Republic of Croatia, 2015), and c) Leontief's inverse was taken from the input-output analysis for Croatia in 2005, which was developed and published (Šutalo et al., 2011).

Objectives of research and hypothesis

The basic aims of the research are to detect the effects of tourism in the economy of Istria. The specific objectives are to determine the structure of the economy of Istria by activities, and the dependence of these

activities on imports. In this connection, a hypothesis is argued that tourism spending multiplies the effects of almost all branches and activities contributing to its growth, which, with a favorable structure of economic activity and their lower dependence on imports, the effects of tourism may be even better.

The proof of the hypothesis set was based on the example of Istria, based on the common approach and methods known to domestic and foreign scientists.

Restrictions on the Precise Calculation of Economic Effects of Tourism

Tourism has an important role and an impact on the economy. However, its importance and impact cannot be accurately assessed for several reasons. Difficulties arise in measuring tourism, as a set of activities determined by demand, and to a large extent reflects that tourism in national accounts is not expressed as a separate sector (Šutalo et al., 2011). Similarly, tourism cannot be reduced to one economic activity, but it must be viewed as a set of different activities. The additional difficulty in measuring the effects of tourism as stated (Hara, 2008) derives from the characteristics of tourism products that are in part inexhaustible and it is not easy to measure them either by physical or financial indicators.

Furthermore, difficulties are evident in the process of creating and maintaining a tourism statistics system, in particular, several critical aspects that need to be taken into account and directly affect the inconsistency of the indicators, namely: the coverage of tourism in the national economy, with no inclusion or non-inclusion of individual effects Activity and ultimately the problem is the treatment of gray economy, as the difference between aversion and legal activity.

Research results

The research in this paper is carried out in the Istrian County. As the economic effects of tourism in the Istrian economy are explored, the tourism development is included in the framework of the research and the achieved results are visitors, nights and tourist consumption. Then an estimate of the direct and indirect economic effects of tourism in the economy of Istria was carried out.

Tourism of Istria

Tourism statistics in Istria date back to the end of the 19th century (Blažević, 1987), however, considering the total tourist achievements, primarily the number of tourists and accommodation units, it is possible to allocate six development periods (Blažević, 1987; Ružić & Demonja, 2015):

1. The beginnings of tourism in Istria (until the beginning of World War I)
2. Tourism in Istria during and between the two world wars (1914-1945)
3. Reconstruction of the economy and intensive growth of tourist capacities (1946 - 1980)
4. Promotion of tourist offer with amenities (1980-1990)
5. Improvement and increase of the quality of the tourist offer (1990 - 2000)
6. Focus on selective forms of tourism (2000 to present).

The initial development of tourism before the First World War, recorded on the Brijuni Islands and in the towns of Poreč, Rovinj and elsewhere, is quite disturbing in the period between the two world wars (Blažević, 1987).

Table 1: *Accommodation capacities and tourist traffic in 1912*

Number of tourist destinations	Number of tourist facilities	Number of tourist beds	Total number of tourists Opatija share in tourist arrivals	Opatija share in tourist arrivals	
Istira	19	343	12.822	114.162	54.696 (48%)

Source: *Blazevic, 1987*

Overcoming the development of tourism is the result of lack of capacity from the past, lack of tradition and cadre (Blažević, 1987). The reasons behind the lack of tourism development in Istria were present immediately after World War II, so until the beginning of the 1950s, post-war reconstruction took place. By the late 60s of the 20th century, tourism

gained a more significant economic and social role in Istria, and then became the dominant economic and social reality of Istria (Table 2).

Table 2.: *Movement of visitors and overnight stays in Istria and Croatia (1953-1968)*

Year	Istria		Croatia		% share of Istria in Croatia	
	Visitors	Overnight visitors	Visitors	Overnight visitors	Visitors	Overnight visitors
1953	29.629	122.720	862.443	3.552.482	3,4	3,4
1960	147.127	1.176.510	1.772.442	9.546.809	8,3	12,3
1968	529.082	4.504.017	3.812.384	22.290.650	13,9	20,2
Index 1968/1953.	1785	3670	442	627	-	-

Source: *Racan, 1969*

In this period there is an intense growth in tourism, which is reflected in the increase in the number of visitors as well as in the increase of tourism in Istria compared to Croatia.

Table 3: *Tourism Development Indicators of Istria from 1966 to 1980*

Year	Total accommodation capacities	Places in campsites	Total (in 000)	
			Visitors	Overnight visitors
1966	38.600	19.428	397	3.497
1970	111.400	46.120	744	6.556
1980	198.300	102.332	1.708	16.237

Source: *Institute for statistics – Rijeka, 1986*

In the period from 1960 to 1980, there is an intensive development of tourist accommodation, food and entertainment facilities (Table 3). This period is characterized by the intensive construction of facilities and facilities with the main objective of ensuring the conditions for receiving as many tourists as possible. The basic characteristic of this period is the construction of large accommodation facilities with a capacity of 400 to 1500 beds of elementary technical and technological equipment. After the extremely rapid growth of tourist capacities and the number of tourists, in the period from 1980 to 1990 there was a slowdown in the intensity of new facilities and capacity building (Table 4).

Table 4: *Tourism Development Indicators of Istria from 1980 to 1990*

Year	Total accommodation capacities	Places in campsites	Places in marines	Total	
				Visitors (in 000)	Overnight visitors (in 000)
1980	198.300	102.332	-	1.708	16.237
1990	245.815	126.420	4.030	2.094	17.467

Source: *Institute for statistics – Rijeka, 1986; Ivosevic (1995)*

In this period, tourism was focused on improving the supply of new amenities to meet the ever increasing demands and needs of tourists (Ružić & Demonja 2015) and devotes more and more attention to the tourists, their needs for entertainment, sports and recreation, as well as the equipment of the hotel with additional amenities. Also, the first marinas for nautical tourism have been built in this period, and the camps are conducting parcels and building additional entertainment, sports and recreational facilities for tourists.

From 1990 to the beginning of 2000, all efforts are primarily aimed at raising the quality of accommodation and food service delivery. The introduction of IT in business processes also begins. These guidelines continue to this day. It is improving its business and management by introducing into the business of modern information systems for monitoring and managing processes in accommodation units and destinations. At the beginning of 2000, the direction of tourism development in Istria, along with existing quality-building efforts, moved in the direction of orientation to selective forms of tourist offer. This is to some extent envisaged by the Master Plan of Istria Tourism (Istarska County, 2003) which places the emphasis on culture and natural attractions, gastronomy, etc. besides the classic "sun and sea" offer.

Changes occur in various forms of accommodation offerings. From the beginning of the 1990s to the present day, hotels are being refurbished by connecting two rooms to one with complete equipment (air-conditioning, television, video, etc.), swimming pools, wellness facilities and the like to meet every wish and needs of tourists. In camps, apart from parcels, new forms of accommodation (mobile homes) are introduced, swimming pools and other facilities are preferred to tourists. In the second half of the 1990s, tourism started to develop in rural areas as well. Small accommodation facilities are becoming increasingly popular and are

noticed in the structure of accommodation capacities. In this development period, we are beginning to think about sustainable development, and in the development of tourism in Istria we start to apply and monitor the indicators of sustainability.

The development of tourism until 1990 was focused exclusively on the sea, at 19 cities and municipalities that have access to the sea (Table 5). Today, tourism in Istria is being developed in municipalities and towns in its rural areas, where it has good results.

Table 5: *Development indicators in Istria tourism from 1990 to 2015*

Year	Total accommodation capacities	Places in campsites	Places in marinas	Rural tourism: No of beds	Maritime tourism		Rural tourism		Total	
					Visitors (in 000)	Overnight visitors (in 000)	Visitors (in 000)	Overnight visitors (in 000)	Visitors (in 000)	Overnight visitors (in 000)
1990	245.815	126.420	4.030	-	2.094	17.467	-	-	2.094	17.467
2000	217.924	106.067	11.000	2.920	2.080	14.284	-	-	2.080	14.284
2010	230.122	113.525	16.606	27.510	2.514	17.363	223	1.678	2.737	19.041
2015	266.491	124.930	16.610	27.600	3.266	21.259	304	2.409	3.570	23.668

Source: *Institute for statistics – Rijeka, 1986; Akilic (2012); Chamber of tourism – Istria (2010, 2015); Statistical almanac of Republic of Croatia (2016)*

The main goal of tourism policy until the 1990s was the realization of a large number of arrivals and nights. Today, it insists on the highest consumption per tourist per day, and the offer includes many features that were previously unknown. The tourist offer during the 1960s to the 1980s was very modest and was spent on accommodation, eating and entertainment services. Nowadays, the offer is significantly expanded, varied, and constantly takes care of increasing its quality and strives to satisfy every wishes and needs of tourists. Since the late 1980s, tourism demand has been exclusively focused on the "sun and sea" offer, while today this orientation is diminished, but tourists are becoming increasingly demanding.

Today, in Istria, great importance is attached to the sustainable development of tourism. Actors in the tourism development of Istria become aware that this is the right alternative for the future of tourism, which are the key factors:

- Multidisciplinary approach (economic, ecological and sociocultural analysis),
- Constant consultations with stakeholders, private and public companies, households renters of rooms, tourism organizations, nature protection associations, cultural heritage, and population and tourists,
- Openness to development (organizing public hearings, engaging media, communicating strategic development stakeholders and the local community), and
- Development that becomes a long-term and flexible project, open to complement depending on changes in the environment.

Thus, Istria has become one of the most developed tourist destinations in Croatia. Istria's tourism in Croatia occupies a significant place, as confirmed by the data in Table 6.

Table 6: *Tourism of Istria and Croatia according to indicators in 2015*

Indicator type	Istria	Croatia	% of Croatia
Capacity (bed and place in the camp)	266.491	1.029.312	25,9
Arrivals (visitors)	3.570.668	14.343.323	24,9
Overnight stays	23.668.568	71.605.315	33,1
Average stay in days	6.6	5,0	-

Source: *Chamber of tourism (2010, 2015); Statistical almanac of Republic of Croatia (2016)*

In 2015, in Istria, tourists have a total accommodation capacity of 266,491 accommodation units (beds and places in camps). With the total capacity of Istria, 25.9% is in the total capacity of Croatia. More than 3.5 million visitors arrived in Istria in 2015, representing 24.9% of Croatia's total arrivals, and over 23.6 million overnight stays or 33.1% of the realized in Croatia. The average stay of tourists in Istria is 6.6 days and is higher than the Croatian average, which is 5.0 days.

The research in this paper is based on tourism spending in Istria estimated by authors at EUR 1.4 billion or HRK 10.9 billion. The estimate is based on daily tourist spending of EUR 66.36 (TOMAS, 2015).

Income of the Istrian economy by activities

Tourism and its effects are recognized in all parts of the GDP. Most of the expense of tourists belongs to personal consumption. Investments represent spending money by companies for doing business for the purpose of tourism. The import includes the money that the tourist spent on the transport of foreign companies, while in the reverse situation, the spent money is accounted for under export, i.e. when selling services of transport and other tourist services by the domestic company to foreign tourists. These expenditures are flowing throughout the economy, so tourism affects almost all sectors of business and economy.

Tourism receipts are used to pay production factors and thus increase income, allowing the state to charge more taxes. The state from the tax money supports (by subsidizing or lending) tourism or some other activity, thereby increasing government spending, and if the capital gained from a state or private company then increases the investment.

Starting from this, there are a number of factors that influence tourism and directly or indirectly determine the contribution that tourism has to GDP (Koncul, 2009): availability of resources, state of the art knowledge, social and political stability, behavior and habits and investments. The availability of resources is important for every activity, because it depends on production but the need for tourism for resources is specific because it gives the possibility of monetizing public natural resources and their availability is one of the key factors of market success, although for the success of tourism it is important to have a competent work strength in the service sector and the readiness of the state to support its development.

Table 7 shows the income of Istria's economy for 2015. Revenues are as evident from the table aggregated in 10 activities, with "market services" according to National Classification of Activities NN 52/03, cover areas (J) Financial Operations and (K) Real Estate, Renting and Business Services. While "non-market services" include areas (L) Public Administration and Defense, Compulsory Social Security, (M) Education, (N) Health Care and Social Welfare, (O) Other Social, Social and Personal Service Activities Without Culture, Sport and Recreation And (P) household activities.

Table 7: *Revenues realized by activities in the economy of Istria (2015)*

Activities	Revenue by activities	%
Agriculture forestry and fishing	260.147.106	0,9
Mining and Industry	7.359.873.941	25,0
Electricity and water supply	1.329.502.005	4,5
Construction	1.957.576.003	6,7
Trade (Wholesale and Retail)	5.704.740.621	19,4
Hotels and restaurants	5.061.007.519	17,2
Transportation (land, water, air)	615.633.411	2,2
Market Services	5.301.159.082	18,0
Culture of sport and recreation	334.576.846	1,1
Non-market services	1.474.808.577	5,0
Total	29.399.025.111	100,0

Source: *GFI-POD 2015, HGK ZK Pula*

In the economy of Istria, over 29.3 billion kunas of revenue was realized in 2015. In the structure of the income of the Istrian economy, the largest share has industrial and mining revenues of 25%, trade with 19.4%, third place is the market service revenues of 18%, and in fourth place the income from catering is 17.2% Participation in the Istrian economy. Following are revenues from construction, non-market services, transportation and more.

Direct and indirect generated value added from tourism in the economy of Istria

Table 8 below shows the overall effects of tourism in the economy of Istria. These impacts are expressed in revenue and value added generated by tourist consumption.

Table 8: *Estimation of direct and indirect generated value added from tourism in Istrian economy in 2015 (in millions of HRK)*

Activities	Revenue by activity	% of total revenue generated by tourist consumption	Income generated by tourist consumption	% of value added in revenue per business	Total added value	Added value generated by tourist consumption	The value added value generated by tourist consumption
Agriculture forestry and fishing	260	0,155	40	0,525	136	21	0,5

Mining and Industry	7.359	0,124	917	0,328	2.414	300	7,5
Energy and water supply	1.329	0,179	238	0,283	376	67	1,7
Construction	1.957	0,053	104	0,347	679	36	0,9
Trade (Wholesale and Retail)	5.704	0,122	696	0,528	3.012	367	9,2
Hotels and restaurants	5.061	0,946	4.788	0,561	2.839	2.686	67,4
Transportation (land, water, air)	615	0,220	135	0,405	294	55	1,4
Market Services	5.301	0,108	573	0,635	3.366	364	9,1
Culture of sport and recreation	334	0,267	89	0,456	152	41	1,0
Non-market services	1.474	0,051	75	0,640	943	48	1,3
Total	29.399		7.635		14.211	3.985	100,0

Source: *the calculation is based on the percentage of matrix multipliers and vector of Croatian tourist consumption for 2005 (Institute for tourism, 2008)*

From the table it is noticeable that the economy of Istria realized over HRK 29.3 billion in revenues in 2015. In this revenue, revenues generated by tourism consumption amount to over HRK 7.6 billion or 25.9% of the total, and over 3.9 billion value added, accounting for 28.0% of total added value of over 14.2 billion,.

For the purpose of comparison and verification of the correctness of the process and the results of the research, the results of the research at the level of the Croatian economy and 13 European Union countries are listed (Table 9).

Table 9: *Comparison of the effects of tourism in Istria and Croatia and 13 EU countries*

Countries	Year	Gross value added	Share of tourism in the economy
Istria	2015	28,0	25,9
Croatia	2011	10,5	10,4
Croatia	2007	9,7	9,6

Austria	2007	5,4	5,4
Cyprus	2007	8,7	-
Czech Republic	2007	2,6	2,9
Denmark	2006	2,5	1,9
France	2005	3,7	4,0
Germany	2000	3,2	5,0
Hungary	2005	5,3	1,4
Ireland	2000	2,9	6,6
Portugal	2004	4,6	-
Slovenia	2003	3,9	4,9
Spain	2005	6,3	-
Sweden	2006	2,9	2,9
Great Britain	2000	3,8	-

Source: *Report on the implementation of TSA in 27 EU Member States. Tourism Satellite Accounts in the European Union. Methodologies and Working Paper*

The data in Table 9 show that the economic impact of tourism in the Istrian economy is high. By comparing them with national economies, they far surpass the Croatian and other economies of the 13 EU countries with which they are compared.

It is inescapable for tourism to contribute to GDP, but there are certain problems that arise when trying to calculate specifically. As stated (Koncul, 2009), tourism is "particularly difficult to estimate because of unclear definitions of services, which are an integral part of it. Some of the positive and negative items that are the reason for the difficulty in the calculation are (Koncul, 2009):

1. Non-subscriber services - those services that do not have an economic transaction related to a specific payment but are implemented in other ways such as reciprocal or barter payments. An example of this may be mutual donation between foreign tourists and hosts
2. Unrecognized services - are those services for which payment has been made but never formally calculated. This is mainly the case when tax evasion is to be avoided and is called a black or sometimes gray economy.
3. Abstraction Costs - Costs that fall under one activity and are calculated in the second. For example, if a tourist buys a real estate and uses it as a vacation home, he does not pay the accommodation

- costs as an owner, but can be said to pay an abstract rent to himself which is equal to the market price he paid for the property.
4. Distribution of public and private income - the difference between revenue generated by the private sector in one activity and the public sector costs in other activities may cause problems with double taxation.
 5. Imbalances in the balance of payments - the problems of calculating investments in tourism and tourism revenues expressed in the fluctuating currency
 6. Social Costs and Benefits - There are positive and negative externalities of tourism's impact on a particular environment. For example, the benefits that tourism can bring to a destination can cause major losses to some other activity in the same destination, and there are problems related to the calculation of real incomes or the loss of tourism in the destination or country
 7. Public goods - the value of public goods (especially public goods) is growing with tourism, but this value cannot be specifically stated because free use to all of them and the only way of calculating the value of these goods could be based on imaginative prices that tourists would volunteer to pay.

When trying to measure the quantitative contribution of tourism to GDP, then certain methods are used to provide sufficient amounts of correct data, but a number of problems occur in this process. The problem with all methods is that the number of touristic service users is high and need not only tourists to use these services, a large percentage of gray economy in tourism, the prices of goods and services often vary and the data obtained may be inaccurate. Four methods were used to measure tourism expenditures and receipts, namely direct expenditure, direct observation of arrivals, tourist surveys and household surveys. Under direct observation of expenditure, it is thought to monitor tourists during their consumption, but this is not possible, and this is the only alternative offered by finding a group of tourists who will follow and record their own expenses. Furthermore, direct observation of receipts implies collecting data on receipts from sales to tourism, such data can be obtained mainly from state institutions or through reported revenue / tax. "Analyses have shown that the value of sales of travel or transportation is fairly accurate, while the values, Relating to entertainment, rest, accommodation and the like, less accurate (Koncul, 2009)." This may be due to the sale of services to tourists and naturists or for non-payment of taxes or labor on "black ". Contrary to direct observation is a survey that,

when conducted with tourists, speaks about the value of tourism and in certain situations (ejection of bias) is very reliable. They are mainly conducted at the entrance and exit of tourists from the destination or country they visit. Households can also be surveyed in which tourism expenditure is estimated at their starting point and are distinguished from total expenditures. It is highly probable that the correct and reliable data will be collected using this method. Each of these methods has its advantages and disadvantages, (Koncul, 2009), therefore, it is necessary to carefully approach the tourism research and use more than one research method to increase the ability to make the right conclusions. Table 10 shows the effect of deliveries by activities in the economy of Istria.

Table 10: *Overview of the indirect and total effects of delivering unit output of each activity to final consumption in the total economy of Istria in 2015*

Activity	Contribution in %	Indirect contribution in %	Rank by multiplier size
Agriculture forestry and fishing	2,04	1,04	7
Mining and Industry	2,61	1,61	2
Electricity and water supply	2,83	1,83	1
Construction	2,59	1,59	3
Trade (Wholesale and Retail)	2,07	1,07	6
Hotels and restaurants	2,00	1,00	8
Transportation (land, water, air)	2,33	1,33	4
Market Services	1,72	0,72	9
Culture, sports and recreation	2,19	1,19	5
Non-market services	1,58	0,58	10

Source: *Authors' calculations*

From the displayed ranking it is evident that the greatest impact of deliveries is in the energy, industry and mining industries, construction and the others. On the other hand, the lowest multiplier has service activities among which is caterer (hotels and restaurants). Table 11 shows the import by industry to investigate the dependence of the Istrian economy on imports, and in this respect the achievement of the effect of tourism.

Table 11: *Realized imports by activities in Istria (in thousands of HRK)*

Activity	Import by activity	%
Agriculture forestry and fishing	16.807	0,4
Mining and Industry	2.022.615	47,3
Electricity and water supply	457.442	10,7
Construction	136.695	3,2
Trade (Wholesale and Retail)	1.131.569	26,5
Hotels and restaurants	204.532	4,8
Transportation (land, water, air)	14.044	0,3
Market Services	180.232	4,2
Culture, sports and recreation	9.603	0,2
Non-market services	101.493	2,4
Total	4.275.033	100,0

Source: *Statistics of Istria region (2015); Basic financial performance of entrepreneurs by business areas in 2015*

From the displayed imports by activity in the Istrian economy it can be seen that in 2015 goods and services were imported in the amount of over HRK 4.2 billion. The most import-export activities in the Istrian economy are mining and the industry with imports of over HRK 2 billion, which makes up 47.3% of the total, followed by trade with over 1.1 billion HRK, accounting for 26.5% of the total, energy and water supply From HRK 457 million, which makes up 10.7% of the total. These are activities that are significant suppliers in order to meet tourism needs directly, such as a shop where tourists buy products for their needs or indirect satisfaction of tourist needs such as energy and water supply, which includes provision of accommodation and food preparation services to tourists in Hotels and restaurants.

Table 12: *Estimation of direct and indirect value added from tourism in Istrian economy in 2015 with excluded import (in millions of HRK)*

Activities	Revenues by activity without import	% of total revenue generated by tourist consumption	Revenue generated by tourist consumption	% of value added in revenues by activity	Total added value	Added value generated by tourist consumption	Structure of value added generated by tourist consumption
Agriculture forestry and fishing	244	0,155	38	0,525	128	20	0,5
Mining and Industry	5.337	0,124	662	0,328	1750	187	5.1

Electricity and water supply	872	0,179	156	0,283	247	44	1,2
Construction	1.821	0,053	96	0,347	632	33	0,9
Trade (Wholesale and Retail)	4.573	0,122	558	0,528	2.414	295	8,1
Hotels and restaurants	4.857	0,946	4.595	0,561	2.725	2.578	70,7
Transportation (land, water, air)	601	0,220	132	0,405	243	53	1,4
Market Services	5.121	0,108	553	0,635	3.252	351	9,6
Culture, sports and recreation	325	0,267	87	0,456	148	40	1,1
Non-market services	1.373	0,051	70	0,640	70	45	1,4
Total	25.124		6.947		11.609	3.646	100,0

Source: *the calculation is based on the percentage of matrix multipliers and vector of Croatian tourist consumption for 2005 (Institute for tourism, 2008)*

Table 12 shows the simulation of the estimation of direct and indirect generated value added from tourism in the Istrian economy in the position of excluded import dependence. In this position, the revenue generated by tourist consumption amounts to HRK 6.9 billion, compared to 7.6 lower by HRK 0.6 billion or 10%, and the value added of HRK 3.6 billion versus 3.9 is lower for 0.3 billion HRK or 8%.

Conclusion

Tourism, which from an economic point of view makes it complex of numerous branches and activities through tourism consumption, causes direct and indirect effects on the economy. In this paper, the total, direct and indirect, contribution of tourism to the economy of Istria is estimated.

In the first step of this research, the development of tourism in Istria was analyzed in order to determine the achieved volume of visitors, nights and tourist consumption. The development of Istrian tourism has been analyzed since its inception by 2015. More than 3.5 million visitors arrived in Istria in 2015, representing 24.9% of Croatia's total arrivals, and over 23.6 million overnight stays or 33.1% of the realized in Croatia. The average stay of tourists in Istria is 6.6 days and is higher than the Croatian average, which is 5.0 days. Tourism spending in Istria was estimated at EUR 1.4 billion or HRK 10.9 billion.

Estimation of total tourism contribution is based on the value of total production realized in the Istrian economy. In the economy of Istria, over HRK 29.3 billion was realized in 2015. In this revenue, revenues generated by tourism consumption amount to over HRK 7.6 billion or 25.9% of the total and over 3.9 billion value added, accounting for 28.0% of total added value of over 14.2 billion.

The research carried out has shown that the Istrian economy is structured from a range of activities that directly or indirectly support the tourist offer (catering, trade, agriculture, industry etc.). From this point of view, the Istrian economy is advantageous because in its structure, the activities of catering, trade, which directly support the tourist offer and consumption are represented in a large percentage. Thanks to the favorable structure of the Istrian economy aimed at the realization of a quality tourist product, it allows for greater tourist consumption and at the expense of the better effects of tourism as a whole.

Comparing the realized effects of tourism in the Istrian economy with national economies, it is found that they are large, and that those with 10 or more percentage points outgrow the Croatian and even the economies of 13 EU countries.

The research carried out in this paper has proved the claim that tourism with tourist consumption generates effects in all branches and activities of the economy, and the effects are higher because the activities are directed towards the direct support of the realization of quality tourist offer.

Finally, it should be emphasized that tourism in countries with a relatively low level of import impacts has higher positive effects than in relatively large countries because the success of placing domestic products on foreign tourists enables a higher multiplier and thus greater influence on the national economy. Although it is about the large number of foreign tourists arriving and the high share of foreign tourist spending, this money can easily go back overseas and the efficiency of spending will fall. In that case, it is necessary to work intensively on raising the competitiveness of domestic products in order to keep the money in the national economy as much as possible.

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