



Munich Personal RePEc Archive

# **Tourism expenditure according to mode of transportation: A comparative study between 2009 and 2012**

Slak Valek, Nataša

University of Maribor, Slovenia

9 July 2015

Online at <https://mpra.ub.uni-muenchen.de/77406/>

MPRA Paper No. 77406, posted 11 Mar 2017 14:34 UTC

# Tourism expenditure according to mode of transportation: A comparative study between 2009 and 2012

Nataša Slak Valek

University of Maribor, Slovenia

Some rights reserved.

Except otherwise noted, this work is licensed under: <https://creativecommons.org/licenses/by-nc-nd/4.0>

A previous version of this paper was published in *Journal of Tourism, Heritage & Services Marketing*, Volume 1, Issue 1, 2017

**Abstract:** *Understanding how tourists move through time and space has become especially important since tourist has become more attentive to prices. This paper explores the issue of changing expenditures as part of understanding tourist's travel patterns and their role in booking accommodation. The State tourism survey containing information from a sample of 497,466 foreign tourists who visited Slovenia in 2009 and 639,756 who visited in 2012 was used to ensure the representativeness. Analysis of variance was used to test the differences in expenditure made by foreign tourists traveling to Slovenian in 2009 and 2012. The results show that transportation expenditure has increased dramatically, but tourism expenditures on accommodation showed a significant downtrend. Beside the fuel prices other causes of these trends and future implications are discussed. Planners may use data presented here to understand how economic trends will affect future transport activity in relation to booking options.*

**Keywords:** Direct booking, travel agency, expenditures, tour package, overnights

**Biographical note:** Nataša Slak Valek is assistant professor at the Faculty of Tourism, University of Maribor, Slovenia. She worked for ten years at the National Tourism Office of Slovenia, first as a professional researcher and later as marketing manager. Corresponding author: Nataša Slak Valek, e-mail: [natasa.slak-valek@um.si](mailto:natasa.slak-valek@um.si)

---

## 1 INTRODUCTION

---

Transport is a pivotal element in tourism that connects a tourist to the destination and thereby unifies the origin-destination connection in the tourist's decisions. It is a dynamic element in the tourism system (Page, 2004) and the basic element to make a trip happened. However, somewhat surprisingly, the study of tourist flows has been the subject of relatively little academic enquiry (McKercher & Lew, 2004). Moreover, recently research on tourism transport have mainly focused on sustainability and environmental challenges such as 'eco' or 'green' transportation and studying 'anti-carbon emissions' (Peeters, 2013; Lund-Durlacher & Dimanche, 2013; Gössling, Scott & Hall, 2013) where the question of how to achieve environmental-friendly tourism activity remains an object of debate (Gössling et al., 2005). While researchers and innovators research sustainable transportation options (Westbrook, 2001) and some others try to understand how to convince more people use electric or hybrids cars (Caulfield, Farrell & McMahon, 2010), the price of transportation still remains an important factor for tourists' decisions (Becken & Schiff, 2010).

Among the many factors affecting tourism demand, the most prominent ones are the level of income, the price of the destination compared with the travellers' origin and various competing destinations, the exchange rates between the currencies of origin and destination, and primary transportation costs (Seetaram, Song, & Page, 2014). The travel demand curve appears to have a long tail, meaning that if prices decline sufficiently people will tend to increase their travel (Litman, 2013). To that end, it is believed that a detailed record of changes in transportation can offer a significant push to tourism in recent critical times. In fact, a 4% decline in international tourism arrivals worldwide was recorded in 2009 (UN WTO, 2015) when the global economic crisis has hit. Although an increase in tourism statistics have been notices since 2010, the present study focuses to understand tourists' patterns in critical times. Thus, a comparison of tourism expenses in 2009 (recession) and 2012 (upturn) was conducted in the present research. More specifically, tourist's trip expenses for transportation, accommodation and tour package are presented.

The problem become even more interesting when coupled with booking option (direct or agency) and mode of transportation. In crisis times people's trust have come to the fore. Ratnasingam (2012) in fact researched customer trust on online transaction in hotels booking and came to the conclusion that 'Customers perceive risks involved in online transactions and they have concerns over privacy and security (pg. 196). Also, Chung and Lee (2011) confirmed that customers will purchase tourism products and services online if the e-commerce website is perceived as trustful. Another view, which has increasingly affected new-times-booking is the trend that makes it more and more difficult for traditional travel agents to offer a personal service to compete with websites that offer online-booking possibilities (Bogdanovych, Berger, Simoff, & Sierra, 2006) simply because of changes in consumer behaviour which has become more attentive to price offers. Thus, a view on direct bookings and agency use was taken into consideration researching tourism mobility in this research.

---

## 2 REVIEW OF LITERATURE

---

Tourism is a major user of transportation meaning tourism places a crucial role in transportation management. Becken and Schiff (2010) concluded that the management of tourism transport and travel distance requires policies and measures that go beyond economic instruments. From here above also derive the inspiration for the present research. Tourism mobility is affected by the availability of attractions and activities at the destination (Burton, 1995), distanced travelled (Becken and Schiff, 2010) and also by a tourist's personality (Plog, 2002). Prideaux (2000) has pointed out that little attention has been given to the link between transport and destination development, while Kelly, Haider & Williams (2007) advised that the mode-choice behavior of travelers can be influenced by characteristics of the transportation options available. Fredman's study (2008) has shown that some determinants like choice of activity and choice of accommodation influence expenditure at the destination, while mode of travel, between others, has an effect to the expenditure outside the destination.

Masiero and Zoltan (2013) has further confirmed that movement patterns and transportation mode choices are linked. In other words, it was confirmed that the choices of visiting more than one destination and the selection of the private mode of transportation used at the destination are positively correlated. Thrane and Farstad (2011) have confirmed previous studies' findings that mode of transportation is an important predictor of personal tourism expenditures. The present study wanted to understand what is the relation between the way of booking and mode of transportation with the expenditure. Within this specialized area one element that needs better understanding is the role of the relative costs of travelling and the way they affect transportation choices of today's tourists. This lack of a comprehensive understanding of tourists' transportation choices is amongst the common criticisms of tourism researchers that authors such as Page (2004) have claimed are detached from the actual experiences of individual tourist and fails to recognize their personal decision-making about travel choices.

The importance of economic choice can be demonstrated by the expansion of low-cost carriers which has reshaped the competitive environment and made significant differences in tourist behaviour due to two main factors: a) The expansion of on-line-only booking systems and b) the ability to search for the lowest prices. Several studies have confirmed that with online systems (direct booking) a consumer has more information not only about prices (Lynch & Ariely, 2000), but also about the offer quality (Vermeulen & Seegers, 2009). Several studies on hotel on-line reviews and recommendations were conducted lately (Sparks & Browning, 2011; Filieri, 2015), but little is known about tourism transport recommendation, as the effect of reviews on car rental companies or airlines. Moreover, recommendations lead a consumer to have better information for deciding on the relative value for money of different tourism offerings, such as direct booking or use of an intermediary, which is the focus of the present research.

On the other hand, not just money, but also time is important for nowadays consumer. In fact, Bogdanovych et al. (2006) shown that travellers like the convenience of booking online, where they can enjoy the comfort of their familiar environment, fast responses on travel-related requests and multitasking of search and decision-making. The traditional approach has changed into a last-minute booking (Webb, 2016), which also has an effect of the pricing policy. For the final user, the question remains the same: are overall trip expenses with a direct booking lower than a use of a tourism agency, as believed by many? However, more recently studies have shown that an increasing number of consumers have taken advantage of the many benefits offered by electronic commerce (Yoon, 2002; Lawton & Weaver, 2009; Buhalis & Law, 2008) which is direct booking rather than use of an agency. Despite the importance of Internet technology in tourism it has been recently claimed that the traditional agencies are still needed for hotel bookings just as they are for airline tickets (Law et al., 2015) although travel agencies still have serious challenges in offering a competitive alternative to direct-booking prices. Both traditional travel agencies and the Internet booking systems are important for a comprehensive tourism offer.

The aim of this paper is, therefore, to explore some of the trends in tourism expenditures to gain an understanding tourist's movement patterns in combination with the method of booking their accommodation by examining a comparison of both for the 2009 and 2012. Our main research question is whether tourists travelling by different modes of transportation differ in expenditures and how their behaviours have changed over the period of three years between 2009 and 2012, and whether this is due to the boom in direct booking options and the global financial crisis of 2008-9.

---

## 3 METHODS

---

National statistics data on tourism were use in this research to ensure the representativeness of data presented. Extensive information on foreign tourists traveling to Slovenia is collected triennially, thus, data from 2009 and 2012 are used. The collection of the data is by a random sampling of foreign tourists staying in Slovenian hotels and campsites. Those tourists staying in hotels in the month of April and those staying in campsites and hotels in July and August for each of the survey years are included in the present research. It is important to point out that this sample covers the major period for foreign tourism in Slovenia in 2009 and 2012. The sample frame for each database is defined by the population of foreign tourists who had stayed at least one night in April in a hotel or at least one night in July or August in a hotel or campsite in Slovenia. In both survey years the same questionnaire, methodology and collection process for the data was used. Results and conclusions of this paper

refer to the sample explained here. The survey was anonymous and except for country of residence, gender, age, socio-economic status and occupation, did not include other personal data. Questionnaire was designed of four major categories:

1. Basic socio-demographic data on foreign tourists
2. Data on travel motives and habits (main purpose of traveling, influence of various factors on decision to visit, use of the internet, organization of trip, means of transport, etc.);
3. Expenditures (travel and accommodation expenses, expenditures on package tours, etc.);
4. Other impressions and opinions about Slovenia

For the purpose of the present paper only specific parts of the survey data were analysed. For these estimates the data has been adjusted according to the weights and methodological processes demanded by the office of national statistics. The data weights used are based on the overall visitation statistics (according to the type of object [hotel, campsite or private room], type of tourist attraction [wellness, mountains, sea, Ljubljana or cities and others) and country of residency [Austria, Italy, Germany, other West European countries, East European countries, ex-Yugoslavia or other)) in order to get representative population data according to the specified parameters.

Table 1: Sample characteristics

	2009	2012	Total
Gender			
Male	56.4 %	59.6 %	58.2 %
Female	43.6 %	40.4 %	41.8 %
Country of residence			
Austria	9.8 %	9.1 %	9.4 %
Croatia	5.4 %	3.7 %	4.4 %
Czech Republic	3.8 %	5.4 %	4.7 %
France	3.4 %	3.6 %	3.5 %
Germany	14.0 %	12.0 %	12.9 %
Italy	21.4 %	18.8 %	19.9 %
The Netherlands	7.4 %	8.2 %	7.8 %
United Kingdom	7.3 %	4.4 %	5.7 %
Other	27.5 %	34.8 %	31.7 %
Age			
15-24 years	7.1 %	8.1 %	7.7 %
25-44 years	45.1 %	46.8 %	46.1 %
45-64 years	36.7 %	35.3 %	35.9 %
65 and above	11.1 %	9.8 %	10.3 %
Employment status			
Employed, self-employed	75.2 %	77.6 %	76.5 %
Retired	17.4 %	13.3 %	15.1 %
Student	7.3 %	9.1 %	8.3 %

*Total refers to the share (%) after merging the data of both years*

The validation process was also defined. The original (non-weighted) data were analysed first. Where more than 75 units fails into each cell data were interpreted without any limitations. In this case, the coefficient of variation is less than 10 %. If there are between 12 and 75 units in each cell, the data validity is appropriate but the data were interpreted with limitations. This data is marked with M in all the tables. In this case, the coefficient of variation is between 10 % and 30 %. Less than 12 units in each cell show scarce data validity and this data were interpreted. In this case, the coefficient of variance is higher than 30 % (marked with N in tables).

In total a sample of 497,466 foreign tourists travelling to Slovenia was obtained for 2009 and 639,756 foreign tourists in 2012. The sample is presented in Table 1.

Main mode of transportation used for travel to Slovenia is presented Table 2. Motorbikes, bikes, trains and boats were merged into category 'other'.

Table 2: Main mode of transportation used by foreign tourists traveling to Slovenia

	2009	2012	Total
Car, van	56.4 %	61.5 %	59.3 %
Camper	9.0 %	8.1 %	8.5 %
Bus	7.5 %	5.5 %	6.4 %
Airplane	19.7 %	20.7 %	20.2 %
Other	7.4 %	4.2 %	5.6 %

*Total refers to the share (%) after merging the data of both years.*

Chi-square test has been used to test the relationship of 2009 and 2012. Pearson's Chi-square value shows 8477.632 being significant at the null level ( $p \approx 0.00$ ), which shows more foreign tourists traveling to Slovenian by car or van and with the airplane, but less of them who travelled to Slovenian hotels and campsites with the camper, bus or other services of transportation in 2009 than in the same period in 2012.

## 2.1 Data preparation

Expenditures data were grouped in two groups: expenses paid to a travel agency and expenses paid directly (on the spot, online or other direct way of paying). Expenses for traveling to and from major destinations and for overnight accommodation were collected on a full cost basis (i.e. total amount paid), while other expenses were collected on a daily basis. For the former, the expenses were collected for the total travel group, i.e. inclusive of all the people that booked and travelled together as a group. Where a trip involved multiple countries, a further adjustment was made to allocate expenses to the part of the visit that covered Slovenia.

In order to calculate the full amount of expenses as accurately as possible the following adjustments were performed:

- For "per person" expenses presentation all expenses collected with the questionnaire were divided by the number of people traveling on the same trip.
- Daily expenses were multiplied by average length of stay in Slovenia in order to present full-trip expenses.
- To limit expenditures to the expenditures made in Slovenia only, a share of the whole trip based on the percentage of days spent in Slovenia was used to apportion the total trip expense.
- Finally, both full expenses and daily expenditures multiplied by length of visit were summed to give the total Slovenian trip expenditure.

After making all these necessary adjustments, the results were weighted as described above.

## 4 RESULTS

The descriptive statistics for type of expenses and their totals are presented. Using analysis of variance, the differences between mean expenditure 2009 and 2012 were tested. The differences that are statistically significant at the  $p < 0.05$  level are presented in bold (Table 3).

Table3: Descriptive statistics for Travel Expenditure (in EUR) per person for a trip to Slovenia in 2009 and 2012

Year	Travel package	Transportation		Overnight stay		Total	
	Agency	Agency	Direct	Agency	Direct		
2009	Mean	519.70	287.50 M	151.18	379.49	260.56	435.02
	N	72,469	7,417 M	414,647	31,093	391,948	497,466
	Std. Dev.	419.76	276.96 M	224.59	310.02	263.46	397.90
	Minimum	19.33	16.67 M	5.00	11.43	11.00	0.00
	Maximum	3,000.00	1,250.00 M	5,000.00	1,200.00	3,900.00	5,900.00
	Std. Error	1.56	3.22 M	0.35	1.76	0.42	0.56
	Kurtosis	7.72	0.75 M	49.70	-0.15	29.07	26.09
	Skewness	2.30	1.32 M	5.40	0.96	3.57	3.46
	2012	Mean	833.78	1,008.14 M	196.15	362.60	249.52
N		78,852	6,734 M	553,521	57,488	503,416	639,756
Std. Dev.		803.83	804.13 M	310.99	223.88	341.44	570.69
Minimum		40.00	63.75 M	4.00	32.86	8.00	40.00
Maximum		3,985.00	2,442.00 M	3,500.00	1,500.00	6,300.00	7,500.00
Std. Error		2.86	9.80 M	0.42	0.93	0.48	0.71
Kurtosis		4.89	-0.91 M	27.36	2.56	127.99	31.78
Skewness		2.18	0.85 M	4.53	1.26	8.58	4.36
F		8,846.81	5,268.35 M	6,232.97	86.85	279.97	6,570.90
Sig.	<b>0.00</b>	<b>0.00 M</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	

All tested differences were statistically significant at the null level; the expenditure of foreign tourists traveling to Slovenia in 2009 was significantly lower than the expenditure in 2012 for a package purchased from a travel agency (2009 average expense 519.70 €, 2012 average expense 833.78 €) and for travel expenditure from any purchase source (agency: 287.50 € in 2009 vs. 1008.14 € in 2012, and direct: 151.18 € in 2009 vs. 196.15 € in 2012). The only lower expense in 2012 was paid for an overnight stay (agency: 379.49 € in 2009 vs. 362.60 € in 2012, and direct 260.56 € vs. 249.52 €). Overall, the total expenditure by visitor increased by 18%; a statistically significant change between 2009 (435.02 €) and 2012 (512.02 €).

Since the expenditure on transportation shows the biggest change between 2009 and 2012 in the costs for foreign tourist travelling to Slovenia, (despite the data being less reliable, although still statistically significant), in the analysis presented in this paper emphasis the main transportation method used by tourists. Descriptive statistics were used to summarise the differences for those transportation options in 2009 and 2012. The main method of transportation in the SURS questionnaire is

defined as “the means used for travelling the major part of your trip” where only one answer was valid among the listed options for reply. This means that the transportation method used for travelling to Slovenia and around Slovenia could be taken into consideration. Statistically significant differences at the null level are presented in bold (Table 4).

Table 4: Travel Expenditure (EUR per person) per trip to Slovenia in 2009 and 2012 by main transportation means and booking method

Year		Travel package	Transportation		Overnight stay		Total
		Agency	Agency	Direct	Agency	Direct	
2009	Car, van	341.65 M	N	90.58	397.25	248.67	350.77
	Camper	N	N	69.78	N	126.43	195.74
	Bus	424.88	N	127.57 M	N	211.95 M	413.46
	Airplane	667.79	503.99 M	461.8	406.36 M	424.92	813.43
2012	Car, van	530.54 M	N	110.23	354.07	234.85	362.71
	Camper	N	N	146.17	N	149.26	298.65
	Bus	399.82	N	127.31 M	N	314.06 M	416.76
	Airplane	1,087.85	1,076.23 M	686.12	494.12 M	394.51	1,103.8
Total	Car, van	<b>F=1,212.86</b> sig.=0.00 M	N	<b>F=7,657.15</b> sig.=0.00	<b>F=489.69</b> sig.=0.00	<b>F=457.13</b> sig.=0.00	<b>F=318.64</b> sig.=0.00
	Camper	N	N	<b>F=16,018.36</b> sig.=0.00	N	<b>F=822.86</b> sig.=0.00	<b>F=9,415.25</b> sig.=0.00
	Bus	<b>F=102.56</b> sig.=0.00	N	F=0.04 sig.=0.84	N	<b>F=348.24</b> sig.=0.00 M	F=2.18 sig.=0.14
	Airplane	<b>F=5,520.08</b> sig.=0.00	<b>F=1,262.64</b> sig.=0.00 M	<b>F=6,478.69</b> sig.=0.00	<b>F=138.87</b> sig.=0.00 M	<b>F=116.06</b> sig.=0.00	<b>F=7,399.69</b> sig.=0.00

Using analysis of variance, the differences between expenditures for the main transportation modes used in 2009 and 2012 were tested. Foreign tourists that travelled to and within Slovenia by car or van in 2009 differed statistically from those who travelled to Slovenia in 2012 in all travel expenses types, with one exception. The differences in expenditure for transportation paid to the travel agency were tested, but no conclusion could be drawn due the limited number of units in the sample. Despite this, it can be concluded that foreign tourists travelling to Slovenia in 2009 by car/van spent less than those in 2012 for the travel package (341.65 € vs. 530.54 € respectively), the transportation paid directly (90.65 € vs. 110.23 €) and their overall travel expenditure (350.77 € vs. 362.71 €). These same tourists (car/van travellers) were found to have higher expenditure in 2009 than 2012 for an overnight stay (397.25 € vs. 354.07 € if organised by agency and 248.67 € vs. 234.85 € if paid directly).

Foreign tourists travelling with a camper to Slovenia in 2009 and 2012 differ statistically in expenses paid directly and in total travel expenditure. (The differences in expenses paid to travel agency cannot be statistically confirmed due to low number of units in the sample.) However, it can be concluded that camper tourists in 2009 spent less for the transportation (69.78 € vs. 146.17 €) and an overnight stay (126.43 € vs. 149.26 €) when paid directly and for overall expenditure in total compared to camper tourists in 2012 (195.74 € vs. 298.65 €). Bus-tourists travelling to Slovenia in 2009 differ statistically from those travelling in 2012 in expenses made on their travel packages and for directly paid expenses for accommodation. (The number of sample units available to test the expenses paid to travel agencies for both, transportation and overnight stays, is too low to perform statistical analysis and marked as N in Table 4). No statistically significant differences can be confirmed for the directly paid expenses for transportation (sig.=0.84) and total expenses (sig.=0.14). The results show that foreign tourists travelling to Slovenia by bus in 2009 spent less for directly paid accommodation than those in 2012 (211.95 € vs. 314.06 €) and the travel package purchased by bus-tourists was also more expensive in 2009 than 2012.

Finally, it was found that all categories of travel expenditure by foreign tourists whose main mode of transport was plane in 2009 differed statistically from similar tourists travelling in 2012. Those travelling in 2009 have spent less for all analysed travel expenses compared to the average expenditures incurred in 2012, with one exception; expenditure for the accommodation paid directly was higher in 2009 than 2012 (424.92 € vs. 394.51 €).

## 5 DISCUSSION AND IMPLICATIONS

As expected, foreign tourists travelling to Slovenia spent more for their travel transportation in 2012 than in 2009, regardless of the way they booked the trip - either directly with the supplier or through a travel agency. Although the data are less reliable (Table 3: Sig. 0.00 M) in the cost of transportation purchased through an agency in 2009 compared to 2012 increased dramatically (287.50 EUR and 1,008.14 EUR respectively) and differences can be considered significant. Two potential explanations for this change can be contemplated: a) prices of transportation have increased dramatically and b) tourists for some reasons chose a high-cost transportation method for their vacation. Since some of the tourists could decide on using helicopters or other expensive transportation modes, it is quite unlikely that all tourists at the same time would decide on such expensive modes of transportation. Amoroso, Migliore, Catalano & Castelluccio (2012) found that helicopters capture a market share of 5–20% of tourist travel, but their study focused on transfer services to reach not very accessible tourist areas, such

islands. Slovenia is a small country, but easy accessible by ground transport (train, car, etc.). Therefore, it is more believable that transportation prices increased due to the steady rise of fuel prices and other indirect transport-related costs. For example, the price for 1L of unleaded petrol was 1.14 EUR at Slovenian petrol stations in August 2009, but increased to 1.56 EUR in August 2012, an increase of 37% over three years. In addition, Slovenia has implemented the Vignette highways toll system in 2009; the vignette price was set annually at 55 EUR, monthly ticket at 30 EUR and weekly (7 days) at 15 EUR. In 2012, the annual vignette cost increased to 95 EUR. A notable number of complaints by foreign tourists regularly travelling to Slovenia were noted in 2009 right after the vignette system was put into operation, although the same system remains in use today.

It should be noted that the tourism travel includes travel to and from the destination as well as travel at the destination (Gössling et al., 2005). Fredman (2008) found that travel by train or air is associated with higher expenditures outside the final destination compared to travel by car/bus, but his study was implemented in the mountain region. Slovenia is a transit country, lying between and connecting Central Europe (Austria, Italy) and the Balkan (Croatia to Montenegro). This can include road, air, rail or other methods of transportation and our results on travel expenditure are clearly a result of the road travel expenses since almost 60% of foreign tourists travelling to Slovenia by car which is possibly due the proximity of other European countries and the lack of flight connections to other European capitals. In fact, according to The Travel and Tourism Competitiveness Report by World Economic Forum (2015), Slovenia falls into the 128<sup>th</sup> place (among 141 tourism economies) when ranking on the measure of “scheduled available international seat kilometres originating in country per week” and into 114<sup>th</sup> place according to the ranking on “number of airlines with scheduled flights originating in the country”. Despite this one would think that it is not soon to expect a new trend in more tourists travelling to Slovenia by air, so the solution needs to be found somewhere else.

The results presented here also suggest the need to answer the question concerning whether the Slovenian government should increase expenditure on road networks and facilities in order to reduce congestion evident to tourists traveling through the country specially in the summer months. Alternatively, other strategies to reduce road transportation costs in order to create larger tourism market opportunities should be studied. If this option comes under serious consideration then road and highways need an urgent investment in infrastructure as part of any future transportation plan.

In the light of these insights, there is a need to point out that transportation expenditure did apparently rise over the 3 years’ period studied, in contrast to tourism accommodation expenditure, which decreased from 362.60 EUR to less than 250 EUR in the same period. This is consistent with Canina, Walsh, & Enz (2003) who claimed that the demand for hotel rooms drops when fuel prices increase. Thus, selling tourism packages containing both transport and hotel is recommended for financially imbalanced times. Asakura and Iryo (2007) have shown that that tourist movement patterns contain various items of information that can be used to design better tourist packages, provide more attractive combinations of attractions and develop travel guidance policies and marketing services. Thus, our analyses focused specifically on various modes of transportation used by tourists travelling to Slovenia with goal of examining changes that occur in transportation choices by tourists over time. This deeper examination of expenditure according to mode of transportation is noteworthy in that the expenditure for transportation was higher in 2012 in all modes of transportation (Table 4: Total). The highest expenditure increase (+52%) between 2009 and 2012 can be found for camper transportation, following by airplane transportation (+35%). There is still a need for further quantitative information about camper travellers due to the low number of sample units in some of expenditure categories, which is recommended for a further research. It was confirmed that expenditures for travel by car increased, whereas the expenditure for the accommodation decreased between 2009 and 2012. On the other hand, airplane-tourists in 2012 spent more than in 2009 for the accommodation paid through an agency, but less when they paid directly for accommodation. It is possible, with agency revenues under threat that they may increase the accommodation prices to compensate the income loss from lower transportation charges (e.g. flight tickets). Two other reasonable explanations might be considered when trying to understand higher expenditure for the accommodation among air travel tourists:

- a) leisure tourists that travel to a destination by a plane stay at one destination longer than tourists travelling by car. As noted by De Cantis, Parroco, Ferrante and Vaccina (2015) a visitor might stay in more than one type of collective accommodation during their annual vacation. In fact, car-passengers especially in a small country such Slovenia, prefer to move from one place to another and change types of the accommodation accordingly, which affect the expenditure.
- b) business tourists travelling by plane are less sensitive to the accommodation prices, since their company generally pays for all the expenses of such trips.

In addition to this it should be point out that tourists’ length of stay at a destination is an especially important and arguably the most salient factor in terms of explaining variation in tourism expenditure irrespective of being a vacation or business traveler (Thrane & Farstad, 2012). In conclusions, it is crucial to point out that conclusive statistical differences in expenditure between tourists travelling with various modes of transportation in 2009 and 2012 were found in this analysis from a small country that places an emphasis on tourism as part of its basic economic activity. Therefore, further research on those various segments of holiday and business tourism market cannot be neglected.

---

## 6 CONCLUSIONS

Several conclusions can be drawn from the present study. Firstly, the expenditure on transportation did increase dramatically between 2009 and 2012 in Slovenia. The two main reasons for this increase have been identified, the implementation of the vignette tolling system on the Slovenian highways in 2009 and the increase of the fuel price in this same period. Secondly, general tourism expenditures on accommodation have shown a downtrend, although growth in accommodation expenditure

booked and paid through an agency was noted amongst tourists travelling by plane. Finally, it is shown that the analysis of travel mode is crucial to understanding expenditure of tourists in general and that various modes of transportation are likely to differ statistically in their relative expenditure levels over time, hence further and regular research in this area is strongly recommended.

---

## REFERENCES

---

- Amoroso, S., Migliore, M., Catalano, M., & Castelluccio, F. (2012). Vertical take-off and landing air transport to provide tourist mobility. *Journal of Air Transport Management*, 24, 49-53.
- Asakura, Y., & Iryo, T. (2007). Analysis of tourist behaviour based on the tracking data collected using a mobile communication instrument. *Transportation Research Part A: Policy and Practice*, 41(7), 684-690.
- Becken, S., & Schiff, A. (2010). Distance models for New Zealand international tourists and the role of transport prices. *Journal of Travel Research*.
- Bogdanovych, A., Berger, H., Simoff, S., & Sierra, C. (2006). Travel agents vs. online booking: Tackling the shortcomings of nowadays online tourism portals. *Information and communication technologies in tourism 2006*, 418-428.
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism management*, 29(4), 609-623.
- Burton, R. (Ed.). (1995). *Tourism and the environment in travel geography* (2nd ed., pp. 1–60). London: Pitman Publishing.
- Canina, L., K. Walsh, and C. Enz (2003). “The Effects of Gasoline-Price Changes on Room Demand. A Study of Branded Hotels from 1988 through 2000.” *Cornell Hotel and Restaurant Administration Quarterly*, 44 (4), 29-37.
- Caulfield, B., Farrell, S., & McMahon, B. (2010). Examining individuals preferences for hybrid electric and alternatively fuelled vehicles. *Transport Policy*, 17(6), 381-387.
- De Cantis, S., Parroco, A. M., Ferrante, M., & Vaccina, F. (2015). Unobserved tourism. *Annals of Tourism Research*, 50, 1-18.
- Filieri, R. (2015). What makes online reviews helpful? A diagnosticity-adoption framework to explain informational and normative influences in e-WOM. *Journal of Business Research*, 68(6), 1261-1270.
- Fredman, P. (2008). Determinants of visitor expenditures in mountain tourism. *Tourism Economics*, 14(2), 297-311.
- Gössling, S., Peeters, P., Ceron, J. P., Dubois, G., Patterson, T., & Richardson, R. B. (2005). The eco-efficiency of tourism. *Ecological economics*, 54(4), 417-434.
- Gössling, S., Scott, D., & Hall, C. M. (2013). Challenges of tourism in a low-carbon economy. *Wiley Interdisciplinary Reviews: Climate Change*, 4(6), 525-538.
- Kelly, J., Haider, W., & Williams, P. W. (2007). A behavioral assessment of tourism transportation options for reducing energy consumption and greenhouse gases. *Journal of Travel Research*, 45(3), 297-309.
- Kim, M. J., Chung, N., & Lee, C. K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management*, 32(2), 256-265.
- Law, R., Leung, R., Lo, A., Leung, D., & Fong, L. H. N. (2015). Distribution channel in hospitality and tourism: Revisiting disintermediation from the perspectives of hotels and travel agencies. *International Journal of Contemporary Hospitality Management*, 27(3), 431-452.
- Lawton, L. J., & Weaver, D. B. (2009). Travel agency threats and opportunities: The perspective of successful owners. *International Journal of Hospitality & Tourism Administration*, 10(1), 68-92.
- Litman, T. (2013). Understanding transport demands and elasticities. How prices and other factors affect travel behavior. Victoria Transport Policy Institute: Litman. Available at <http://www.vtpi.org/elasticities.pdf>.
- Lund-Durlacher, D., & Dimanche, F. (2013). Mobilities and sustainable tourism: an introduction. *Journal of Sustainable Tourism*, 21(4), 505-510.
- Lynch Jr, J. G., & Ariely, D. (2000). Wine online: Search costs affect competition on price, quality, and distribution. *Marketing Science*, 19(1), 83-103.
- Masiero, L., & Zoltan, J. (2013). Tourists intra-destination visits and transport mode: A bivariate probit model. *Annals of Tourism Research*, 43, 529-546.
- McKercher, B., & Lew, A. A. (2004). Tourist flows and the spatial distribution of tourists. *A companion to tourism*, 36-48.
- Page, S. (2004). Transport for tourism. *A companion to tourism*, 146 - 159.
- Peeters, P. M. (2013). Developing a long-term global tourism transport model using a behavioural approach: implications for sustainable tourism policy making. *Journal of Sustainable Tourism*, 21(7), 1049-1069.
- Plog, S. C. (2002). The power of psychographics and the concept of venturesomeness. *Journal of Travel Research*, 40(3), 244-251.
- Prideaux, B. (2000). The role of the transport system in destination development. *Tourism management*, 21(1), 53-63.
- Ratnasingam, P. (2012). Customer's trust indicators in the online hotel booking decision. *International Journal of Business, Humanities and Technology*, 2(2), 192-198.
- Seetaram, N., Song, H., & Page, S. J. (2014). Air passenger duty and outbound tourism demand from the United Kingdom. *Journal of Travel Research*, 53(4), 476-487.
- Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management*, 32(6), 1310-1323.
- Thrane, C., & Farstad, E. (2011). Domestic tourism expenditures: The non-linear effects of length of stay and travel party size. *Tourism Management*, 32(1), 46-52.
- Thrane, C., & Farstad, E. (2012). Tourists' length of stay: the case of international summer visitors to Norway. *Tourism Economics*, 18(5), 1069-1082.
- UN WTO (2015): Annual report 2014. Retrieved from <http://www2.unwto.org/annualreport2014> on May 10, 2016.



- Vermeulen, I. E., & Seegers, D. (2009). Tried and tested: The impact of online hotel reviews on consumer consideration. *Tourism Management, 30*(1), 123-127.
- Webb, T. (2016). From travel agents to OTAs: How the evolution of consumer booking behavior has affected revenue management. *Journal of Revenue & Pricing Management*.
- Westbrook, M. H. (2001). *The electric and hybrid electric car*. Institution of Electrical Engineers and Society of Automotive Engineers, UK and SAE.
- World Economic Forum (2015): The travel and tourism competitiveness report 2015.
- Yoon, S. J. (2002). The antecedents and consequences of trust in online-purchase decisions. *Journal of interactive marketing, 16*(2), 47-63.
-