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Analysis of Tourists' Expenditures at the 2014 Sochi Olympic Games

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ABSTRACT

The aim of the this study is to determine the Russian tourists' expenditures during the 2014 Sochi Olympic Games, comparing these with tourists' expenditures 2 years before and examine their affecting factors. The analysis showed that Olympic tourists' expenditures were significantly higher than spending of other leisure travellers and amounted approximately US$ 2,000 per a trip. It was also found that the expenditures' structure of Olympic tourists differed from other tourists due to the additional spending on the Olympic events and a higher cost of accommodation. The level of Olympic tourists' expenditures was influenced by many socio-demographic and travel-related factors such as family income, occupation, type of accommodation, purpose of the trip.

Keywords: Tourists' Expenditures, Olympic Tourism, 2014 Sochi Olympic Games
JEL Classification: L83

1. INTRODUCTION

The Olympic games are one of the most important phenomena of modernity, having great economic, social and environmental effects on the development of host destinations. Olympics attract a significant number of visitors and therefore are directly related to tourism. According to Weed (2008. p. 22) Olympic tourism can be defined as "tourism behaviour motivated or generated by Olympic-related activities." The European Tour Operators Association (2010) reported a significant increase in the number of tourists after Olympics. The growth of tourist flow in Beijing after the Olympics, for instance, reached 4.5 million tourists (Beijing Olympic Update, 2009).

The economic benefits from visitors are related to their spending behaviour (Frechtling, 2006), therefore a good understanding of this could serve as a guide for the planning of marketing campaigns, help in the choice of profitable tourist products and can be of interest from a policy perspective.

The aim of this study was to determine the Russian tourists' expenditures during the 2014 Sochi Olympic games, compare these with tourists' expenditures for the previous 2 years and examine their affecting factors.

2. LITERATURE REVIEW

2.1. Tourist Expenditure

Tourist expenditure is one of the most important issues in the analysis of the tourist destinations' economy, since they directly determine the tourism industry's profitability (Wang and Davidson, 2010). Many studies have examined the tourist expenditure both at the macro and micro level. Alegre and Pou (2004) commented that existing studies are more focused on macro-economic level of expenditure analysis, although micro-econometric models have some advantages.

Characteristics of expenditures explain how to use tourist spending as the dependent variable. Kozak et al. (2008) considered that there has been no consensus so far on how to define the term "tourists' expenditure" as a dependent variable. They suggested that four different variables should be used to determine the tourists' spending: Total and daily expenditures per person, total and daily expenditures per travel party. Some researchers disaggregated

tourist expenditures into accommodations, transportations, meals, entertainment, shopping and attractions to understand which way particular factors influence on different categories of spending (Wang et al., 2006).

In this study, we estimated the total and daily expenditures per person and disaggregated tourist expenditure per trip.

Many researchers attempted to estimate the determinants of tourist spending, because this was a useful tool for understanding expenditure patterns (Saayman and Saayman, 2012). These studies were considered quite fully in recent reviews by Wang and Davidson (2010) and Brida and Scuderi (2012). According to these researchers, the most frequently used explanatory variables could be classified into the following groups: Social-demographic, trip-related and destination-related variables.

Many studies showed that social-demographic characteristics of travelers (e.g., gender, age, education, occupation, place of residence, nationality, level of income) affected the spending significantly (Alegre and Pou, 2004; Wang and Davidson, 2010; Brida and Scuderi, 2012), but the empirical findings were sometimes in conflict. It is possible that these contradictions are associated with the complex nature of the tourist spending's factors.

Trip-related characteristics, such as type of accommodation, duration of stay, traveled distance, size of group, holiday organization mode, first-time/repeat trips and purpose of travel also were frequently used to explain expenditures (Brida and Scuderi, 2012).

As the demand is a function of characteristics of the destinations (Wang and Davidson, 2010) one may suggest that destination-related factors have the effect on tourist expenditures and differences in the type of destination may be the cause of various schemes of tourist spending (Svensson et al., 2011). It is known that mega-events such as the Olympic games cause a significant tourist spending (Saayman and Saayman, 2012).

To summarize the results of the above studies, travel expense behavior can potentially be explained by numerous factors, but it is important to consider that these factors are interrelated. For example, Kim et al. (2010) pointed out the marginal effect of several affecting factors on the tourist spending behavior. In this context tracing out the determinants of spending for the tourist-consumer through powerful analytical models is crucial. In Brida and Scuderi's (2012) article a comprehensive review of such models for the analysis of tourist spending at the micro-level was presented. The authors suggest that the most frequently used classical regression techniques employ such variables as income, socio-demographic and trip-related factors and recommend usage of new methodological techniques for the exploration of new evidence. A limited number of studies used structural equation modeling (SEM) to assess the effect of different determinants on tourist expenditures in the Olympics' context.

2.2. Olympic Tourism

Within the body of sports tourism literature Olympic tourism is classified as part of sports tourism (Weed, 2008). Gibson (2003. p. 337) defined sport tourism as travel to watch sport competitions (called as "event sport tourism"), participate in sport activities (called as "active sport tourism"), and venerate something associated with a sport or "nostalgia sport tourism."

There are, however, a number of other approaches for the definition of this concept that can be used to provide boundaries for discussion (Deery et al., 2004). One of the approaches was suggested by Gammon and Robinson (2003). They offered to divide sport tourism into sport tourism itself and tourism sport. Both of these types comprised a hard and soft definition. Sport tourism refers to those persons who were involved in sport competition or sport recreation in the active or passive form during the trip. Sport was the primary motivation for these tourists. Tourism sport, on the other hand, included people who participated in sport during the travel as a secondary activity. This structure has been named a quadripartite construct (Sofield, 2003).

Weed and Bull (2009. p. 170) offered an expanded understanding of this definition and highlighted five types of sports tourism: Event sports tourism, supplementary sports tourism, luxury sports tourism, sports training tourism and sports participation tourism.

For the purpose of this work we studied the spending behaviour of event sport tourists only. A sport event tourist can be defined as "a temporary visitor staying at least 24 h in the host location and whose primary purpose is to participate in or watch a sports event with the destination visited being a secondary consideration" (Chen and Funk, 2010. p. 244).

3. RESEARCH METHODOLOGY

Events of the 2014 Olympic games took place in Sochi, which is the main Russian resort at the Black Sea coast. The city extends for more than 140 km along the sea coast with a population of just under 420,000. Sochi annually attracts more than 4 million tourists.

The individuals who arrived to Sochi during the Games were the target population for the purposes of this study. The research was carried out by a group of students at the railway stations and airport during the second week of the Olympics. Interview method using questionnaire was used to collect data. The final sample for the analysis was N = 294 respondents in total.

The questionnaire consisted of the following sections: Questions about the aim of travel; tourist accommodations (type of accommodation, length of stay), evaluation of the Olympics' attributes (estimation of services' quality); questions on the tourist expenditures, socio-demographic and behavioural questions. Items that reflected overall services' quality and loyalty were measured on a 5-point Likert scale (from 1 - Very dissatisfied to 5 - Very satisfied). We obtained the individual's total expenditure and the expenditure of one person per day, as well as separate areas of expenditure.

The data were analysed using SPSS 21 and AMOS 19.

The analysis of variance was carried out with the socio-demographic and behavioural variables as grouping variables, and total and daily expenditure as dependent variables.

The SEM was used to build the structural model of the relationship between total tourist expenditures, services' quality, length of stay and independent socio-demographic and behavioural variables. SEM analysis was carried out using Amos SPSS. All parameters were estimated by using the method of maximum likelihood estimation. Hypotheses were tested simultaneously to determine the direction and significance of relationships. Universally-accepted statistical indexes, such as Chi-square/df ratio, normed fit index (NFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) were used to assess the goodness-of-fit of the proposed model. The recommended Chi-square/df ratio must be <3. The value of NFI and CFI ranges from 0 to 1, with values closer to 1.00 being indicative of good fit, and RMSEA must be <0.08 (Byrne, 2001).

4. RESEARCH RESULTS AND DISCUSSION

The socio-demographic and trip-related information of the respondents are presented in Table 1.

The slight majority (52.6%) were male. The largest age category was composed of those aged between 20 and 29 years; closely followed by those aged 30-39 years. The largest occupational categories were professional workers (19.4%), business owners (13.5%) and managers (13.2%). The 51.9% of travelers earned from RUB 20,000 to 60,000 monthly. The majority of tourists (57.1%) stayed in Sochi for less than a week and 77.0% visited more than once. 64.9% of the respondents traveled alone and paid for the tour from their own budget. They were more likely choosing private accommodation facilities and organize their trip themselves.

It is clear that the main purpose of travel for the majority (79.2%) was visiting the Olympics.

Travelers' total, daily and disaggregated expenditures are shown in Table 2.

The results revealed that the average total personal expenditure of the tourists during the Olympics was RUB 62051 or US$1998 (the official exchange rate USD/RUB of The Bank of Russia was 36.05 at 2012.02.28) and the daily cost averaged RUB 8385 ($232.59). Hardie and Perry (2013) reported a slightly greater amount of visitors' spending (£1,553) at the 2012 London Olympics. The share of accommodation cost in total was 41.41%, transport expenditure 17.56%, and other expenditures added to 41.03%.

We compared the effects of several socio-demographic characteristics at the level of visitors' expenditure (Table 1). Males spent on average significantly more than females which contradicts Collins and Tisdell's (2002) study. As for the age, no relationship with expenditure was found. Occupations had significant effect on total (F = 2.366; P = 0.011) and daily (F = 2.089; P = 0.025) tourist expenditures: A lower level was observed from individuals with

Table 1: Tourist expenditures per person (RUB) by socio-demographic and trip-related characteristics

Variables	N (%)	Total expenditure	Daily expenditure
Gender			
Male	149 (52.6)	71997*	8969
Female	134 (47.4)	51542	7521
Age			
16-19	35 (12.5)	65585	8806
20-29	86 (30.6)	51747	7951
30-39	73 (26.0)	69801	8964
40-49	46 (16.4)	92101	8866
50-59	33 (11.7)	39092	7070
60 and above	8 (2.8)	45096	7173
Occupation			
Government official	29 (10.1)	91518	12059
Executive/manager	38 (13.2)	93471*	9702
Professional	56 (19.4)	54418	7913
Military	6 (2.1)	42625	4795
Business owner	39 (13.5)	81877	11892*
Unskilled worker	35 (12.2)	46841	8273
Unemployed	11 (3.8)	37025	5140
Housework	17 (5.9)	33485*	6055*
Student	33 (11.5)	43638	5159
Retired	15 (5.2)	25533*	5303
Others	9 (3.1)	100444	10185
Monthly income (RUB)			
<20000	94 (35.3)	35924*	6539*
20000-60000	138 (51.9)	71683*	9788
>60000	34 (12.8)	115189*	10968*
Accompanying person			
Travel alone	157 (64.9)	62449	9596
Travel more than one	85 (35.1)	74791	7495
Length of stay (days)			
<7	168 (57.1)	35733*	9748*
7-14	55 (18.7)	68257*	7029*
>14	71 (25.2)	119515*	6207
Type of accommodation			
Sanatorium	22 (7.7)	51609	7454
Hotel	85 (29.6)	91464*	11397
Private facilities	162 (56.4)	48576*	6808*
Holiday home	18 (6.3)	68804	11285
Holiday organization mode			
Travel agency	23 (8.0)	65637	11474
Him (her) self	245 (84.8)	63268	8470
Other	21 (7.2)	42001	3521*
Repeat visits	100.0		
1	77 (33.0)	63675	10159*
>1	156 (77.0)	64094	7738
Source of payment for travel			
Him (her) self	254 (87.6)	61235	8212
Employer	16 (5.5)	82554	10573
State programs	5 (1.7)	62870	5804
Others	15 (5.2)	58707	9463
Purpose of travel			
Olympic games	232 (79.2)	60001	8472
Recreation	31 (10.6)	58293	6788
Treatment	3 (1.0)	175803	44333
Business	16 (5.5)	91019	7193
Other	11 (3.7)	40972	3421*

*P<0.05. Source: Authors' creation

Table 2: Olympic tourists' versus other tourists' expenditures (per person, RUB)

Tourist expenditure	Olympic tourists in February 2015 (N=294)			Discount mean	Other tourists in August 2012 (N=389)*		
	Mean	Standard error	%		Mean	Standard error	%
Total expenditure on the trip	62051	4827	-	56724	39782	1420	
Daily expenditure	8385	540	-	7665	3149	129	
Disaggregated expenditure on the trip			100.0				100.0
Accommodation	25695	3765	41.41	23489	11790	715	29.64
Transport to destination	10898	846	17.56	9962	13059	530	32.83
Shopping	1555	262	2.51	1421	2306	230	5.80
Food and drink	5699	548	9.18	5210	7758	477	19.50
Cultural/sporting activities	1167	174	1.88	1067	2599	245	6.53
Local transport	474	76	0.76	433	533	53	1.33
Health	176	49	0.28	160	1121	93	2.83
Info	897	140	1.45	820	0	0	0
Olympic souvenirs	2200	389	3.55	2011	0	0	0
Olympic tickets	9162	969	14.77	8376	0	0	0
Other	4128	560	6.65	3773	616	88	1.54

Discount mean - Is expenditure in the prices on the August 2012. Source: Authors' creation; *Vetitnev (2015. p. 679)

housework as a main occupation and a higher level, as expected, from the executives and business owners.

As to the family income's influence, our result was similar to that of Chang et al.'s (2013) study meaning that the visitors' total expenditures increased when their budgets increased.

The length of stay was a factor directly affecting tourist spending: The shorter the trip, the more cost per total trip and less cost per a day.

The choice of the accommodations also affected the level of tourist expenditure: Private facilities offered lower prices than hotels.

Repeat visitors spent less money than first-time visitors, which corresponds to Alegre and Cladera's (2010) study.

We found no relationship between tourist spending and other trip-related variables such as a number of accompanying persons, holiday organization mode, and source of payment for travel or purpose of travel.

It was interesting to compare the level of Olympic tourists' expenditure with spending of the recreations' tourists (Table 2). The data about recreations' tourists were obtained in August 2012 (Vetitnev, 2015). We have given the dimensions of the 2014 expenditures in comparison to the prices of 2012 using consumer price index of market basket, produced monthly by the Federal State Statistics Service.

It was found that the total expenditure of Olympic tourists was almost 1.5 times and daily expenditure 2.43 times higher than the expenditures of recreation tourists. The structure of the disaggregated expenditures also differed due to the higher cost of accommodation during the Olympics and other Olympic-related additional costs. Our result indicates a significantly higher yield of Olympic tourism compared to the traditional leisure tourism that was in line with Hardie and Perry's (2013) study.

To clarify mutual influence of determinants on tourist expenditures we constructed a graphical linear model using SEM (Figure 1).

It was found that the total tourist expenditures were influenced by the length of stay, level of family income, purpose of travel and forms of trip organization. The positive evaluation of service quality also affected the level of spending: More satisfied visitors had lower costs.

The length of stay was, in turn, influenced by the family income, purpose and forms of compensation for the travel, time decision about the trip, the number of activities planned and the forms of trip organization.

Evaluation of the service quality was associated with the participation in the events of the Olympic Games, level of ticket prices, length of stay and time decision about the trip.

5.CONCLUSION

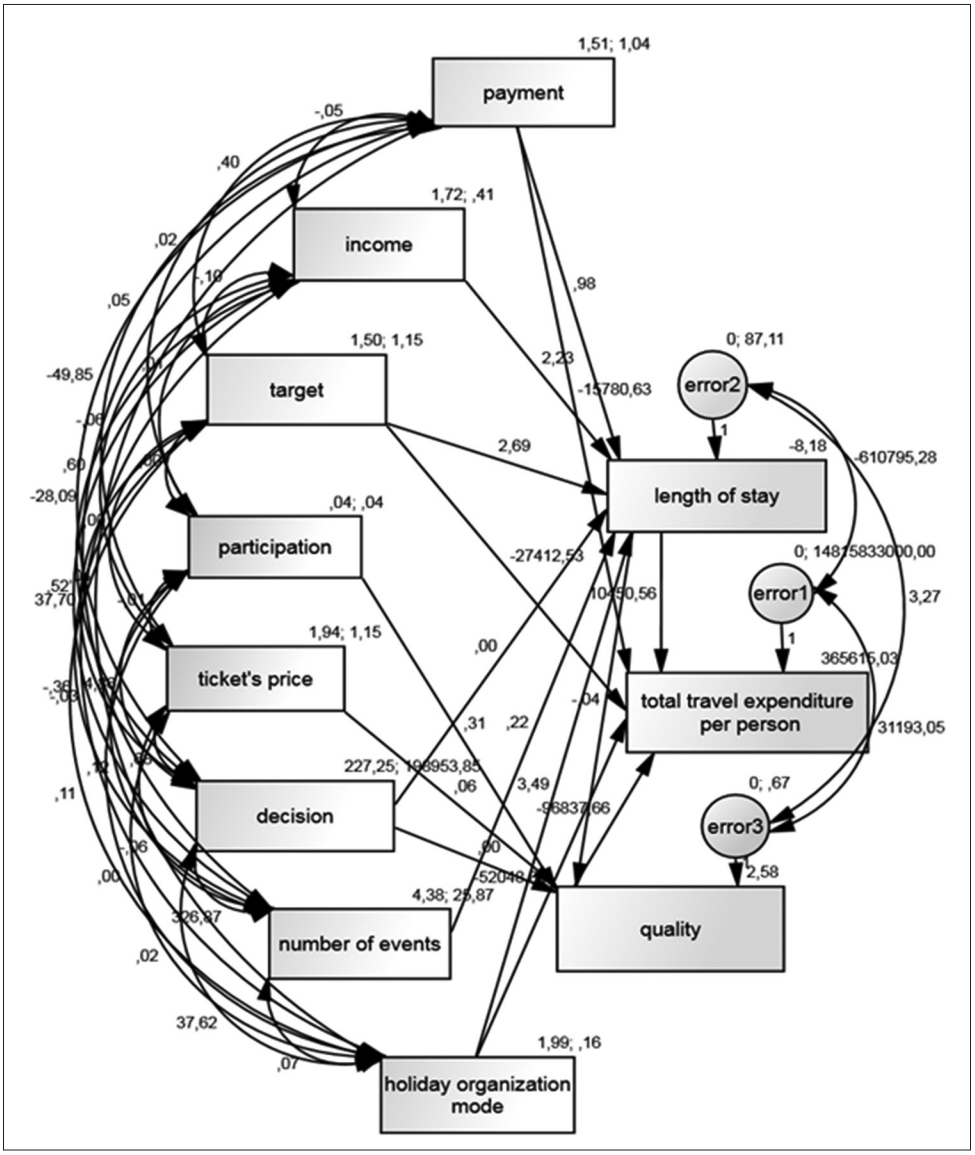
This article provides the analysis of tourists' expenditure during the 2014 Sochi Olympic Games. The analysis supports the following conclusions:

1. The expenditures were significantly higher during the Olympic Games than spending of other leisure travellers and amounted to approximately US$ 2,000 per a trip.
2. The expenditures' structure also differed from that of other tourists due to the additional spending on the Olympic events and a higher cost of accommodation.

The level of Olympic expenditure of tourists was influenced by many socio-demographic and travel-related factors such as family income, occupation, type of accommodation, purpose of the trip and this agrees with the results published in other literature.

These results can be useful to tourism managers and event organizers to understand the spending behaviour in order to perform the strategic planning, stimulate the expenditure patterns and improve activities of tourists during their visit to the event.

Figure 1: Structural model of total Olympic tourists' expenditure



Source: Authors' creation

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