Comparative Study on the Distribution of the Categories of Expenditures Made by Resident Tourists in the EU Countries in 2016

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Abstract

The tourism market research can be oriented on its two main components, i.e. tourism demand and supply. It is well-known that the tourism market is complex and dynamic and a large number of factors (of different nature) act on its components. Most research conducted in this field has a quantitative nature and expresses the size and structure of the tourism market.

This study includes a quantitative research on tourism demand, by processing the information on the tourist expenditures incurred during the domestic trips taken by the tourists from the EU countries in 2016.

The combination of the working methods (the CFA statistical method and the SPSS statistical software) allowed us to perform a comparative analysis between countries regarding the size and structure of expenditures. Moreover, it enabled us to shape the profile of each expenditure category, as presented in the European statistics. The research results do not include issues related to the reasons behind these expenditures.

Key words: expenditures categories, correspondence factor analysis, resident tourists, behavior
J.E.L. classification: C10, C38, L83, M31, Z32

1. Introduction

Tourism demand is not the same as tourism consumption; on the contrary, they should be viewed as concepts with different contents. Tourism demand is made up of the persons who "travel regularly and temporarily away from their usual residence for reasons other than work or performance of paid activities" (Minciu, 2004, pg. 137); the other concept, i.e. tourism consumption, is the result of the confrontation between actual demand and tourism supply. Tourism consumption is expressed by "the expenditures made by the subjects of the tourism demand for the purchase of goods and services and by tourist motivation" (Minciu, 2004, pg.137). In such an approach to tourism consumption, researchers aim at determining its size and structure. Thus, two research plans can be delimited: one of the actual consumption research, focused on the use of goods and services, and another one related to the decipherment of the complex mechanisms that trigger the consumption process. (Florescu,1992)

The research of the actual consumption takes into account its quantitative and structural aspects, highlighting the particularities determined by its formative factors. The data processed in this paper refer to the main categories of tourist expenditures, allowing only the investigation of the quantitative and structural aspects of the consumption of resident tourists.

2. Creating the appropriate research framework

This study is a quantitative and descriptive desk research based on the analysis of cross-sectional secondary data provided by international statistics, represented by the values of the "expenditure categories" indicator. It is noteworthy that the data used in this research refer to the categories of expenditures made by resident tourists, only for domestic trips. (Sank *et al*, 2001; Minciu, 2004)

These data were provided by Eurostat statistics (Data Explorer) and refer to the 27 EU countries with available information for 2016 [European Commission, Eurostat, Tourism, Data, Main Tables].

In European statistics, tourist expenditures are monitored and classified into the following main categories: "expenditure on transport", "expenditure on restaurants/café", "expenditure on accommodation", "expenditure on durables" and "other expenditure".

For the purpose of this study, we used the statistical method known as ***the correspondence factor analysis (CFA)***, and data processing was performed by ***the SPSS statistical software***. (Benzecri, 1992; Field, 2009; Pintilescu, 2007). The concepts and definitions used in this study are consistent with the specifications described in the "Methodological Handbook for Tourism Statistics". (United Nations and UNWTO, 2008).

3. Data, results and discussions

The research started by drafting the correspondence table, which in this study presents the distribution of the statistical units according to the simultaneous variance of the two variables, i.e. the distribution of expenditures according to the tourists' "*country of residence*" and "*main expenditure types/ categories*".

Table no 1: Correspondence table for the tourist expenditures, by main expenditure categories and the tourists' country of residence (2016)

Country	Expenditure category					
	Expenditure on transport	Expenditure on restaurants/cafe	Expenditure on accommodation	Expenditure on durables	Other expenditure	Active Margin
Belgium	83223.150	228113.530	287226.980	23243.840	78533.920	700341.420
Bulgaria	71632.530	143704.610	93611.740	.000	45230.800	354179.680
Czech Republic	314524.120	381274.590	475054.390	704.240	676546.510	1848103.850
Denmark	.000	.000	.000	.000	.000	.000
Germany	13242749.440	.000	18252756.510	2563041.530	11450990.970	45509538.450
Estonia	72766.170	59759.310	64483.410	839.060	52266.970	250114.920
Ireland	221779.230	.000	555652.680	44341.530	656542.440	1478315.880
Greece	303514.540	498588.140	226070.400	4009.590	338071.400	1370254.070
Spain	5593414.910	6483906.140	6091959.770	408967.820	5856075.680	24434324.320
France	11158797.970	8636765.280	12599034.290	2236720.270	14836758.920	49468076.730
Croatia	149958.830	148898.670	139849.420	3403.800	77163.870	519274.590
Italy	3417593.910	.000	5480852.990	47946.370	5204612.750	14151006.020
Cyprus	63146.070	59914.350	43819.770	26.380	.000	166906.570
Latvia	.000	83448.050	14029.100	13875.860	.000	111353.010
Lithuania	80435.110	1510.020	60072.820	31020.750	.000	173038.700
Luxembourg	3149.750	3743.780	149.220	3459.180	.000	10501.930
Hungary	376110.160	89764.060	382916.310	2204.710	.000	850995.240
Malta	151.020	26630.880	.000	12945.190	.000	39727.090
Netherlands	580889.090	683703.210	1525839.140	46898.840	658813.820	3496144.100
Austria	830139.440	.000	2041215.480	68320.040	1609656.910	4549331.870
Poland	969088.290	1678701.090	1637063.390	10963.960	910834.200	5206650.930
Portugal	.000	.000	.000	.000	.000	.000
Romania	541760.840	483848.580	384552.850	2378.390	357524.730	1770065.390
Slovenia	28505.590	34660.060	94372.720	15.300	37674.810	195228.480
Slovakia	136519.620	178993.180	309957.990	6467.230	239781.470	871719.490
Finland	1582405.190	1111036.760	1288398.740	189160.490	1639431.010	5810432.190
Sweden	1245141.640	.000	2178405.800	313137.000	2021210.490	5757894.930
Active Margin	41067396.610	21016964.290	54227345.910	6034091.370	46747721.670	169093519.850

Source: Eurostat data processed by SPSS

It is noteworthy that each table row refers to a country and includes the amount of the expenditures (expressed in thousands of euro) made by resident tourists per total and per main expenditure categories.

The last table row (Active Margin) shows the total amount of expenditures (made by resident tourists) resulting from the sum of the expenditures from all countries, but also per main categories of tourist expenditures.

The highest value was held by "*expenditure on accommodation*", i.e. EUR 54,227,345.910. This category was followed by "*other expenditure*", with EUR 46,747,721.670. The category "*expenditure on transport"* had EUR 41,067,396.610, the "*expenditures on restaurants/ café*" amounted to EUR 21,016,964.290 and the category "*expenditures on durables*" amounted to EUR 6,034,091.370.

In Romania, the highest values were held by *"expenditure on transport"*, i.e. EUR 541,760.840 and by "*expenditure on restaurants/café"*, i.e. EUR 483,848.580. Approximate values were held by "*expenditure on accommodation"*, i.e. EUR 384,552.850 and "*other expenditures*", i.e. EUR 357,524.730. A very small amount, i.e. EUR 2.378,390, was held by "*expenditure on durables*". Thus, in Romania, the ranking of the amounts representing the five expenditure types/ categories differed from the ranking of the average values at the level of the analyzed countries.

By applying the CFA method, we have determined the relative frequencies of the categories of "*main categories of tourist expenditures*" and the distribution of the categories of the other variable ("*country of residence*") among the categories of the first variable (the "*main categories of tourism expenditure*"). (Benzecri, 1992; Baltagi, 2008)

Table no. 2: Column profiles for the distribution of tourist expenditures by main expenditure categories and country of residence (2016) (Column Profiles output)

Country	Expenditure category					
	Expenditure on transport	**Expenditure on restaurants/cafe**	**Expenditure on accommodation**	**Expenditure on durables**	**Other expenditure**	**Mass**
Belgium	.002	.011	.005	.004	.002	.004
Bulgaria	.002	.007	.002	.000	.001	.002
Czech Republic	.008	.018	.009	.000	.014	.011
Denmark	.000	.000	.000	.000	.000	.000
Germany	.322	.000	.337	.425	.245	.269
Estonia	.002	.003	.001	.000	.001	.001
Ireland	.005	.000	.010	.007	.014	.009
Greece	.007	.024	.004	.001	.007	.008
Spain	.136	.309	.112	.068	.125	.145
France	.272	.411	.232	.371	.317	.293
Croatia	.004	.007	.003	.001	.002	.003
Italy	.083	.000	.101	.008	.111	.084
Cyprus	.002	.003	.001	.000	.000	.001
Latvia	.000	.004	.000	.002	.000	.001
Lithuania	.002	.000	.001	.005	.000	.001
Luxembourg	.000	.000	.000	.001	.000	.000
Hungary	.009	.004	.007	.000	.000	.005
Malta	.000	.001	.000	.002	.000	.000
Netherlands	.014	.033	.028	.008	.014	.021
Austria	.020	.000	.038	.011	.034	.027
Poland	.024	.080	.030	.002	.019	.031
Portugal	.000	.000	.000	.000	.000	.000
Romania	.013	.023	.007	.000	.008	.010
Slovenia	.001	.002	.002	.000	.001	.001
Slovakia	.003	.009	.006	.001	.005	.005
Finland	.039	.053	.024	.031	.035	.034
Sweden	.030	.000	.040	.052	.043	.034
Active Margin	1.000	1.000	1.000	1.000	1.000	

Source: Eurostat data processed by SPSS

The figures in Table 2 show the distribution (shares) of the expenditures made by domestic tourists for each analyzed *country of residence*, within each of *the five main expenditure categories*.

This table shows, on the one hand, the column profiles (i.e. the structure of each *main expenditure category*, according to the tourists' *country of residence*) and, on the other hand, the ranking of each country (the hierarchy of countries) within each main expenditure category. (Spircu. 2005; Spircu et al. 1994) In another approach, we can assume that the values in Table 3

represent the measurement of the contribution or participation rate of the expenditures made by tourists in each analyzed country, for each main expenditure category. (Pintilescu, 2007; Everitt *et al*, 2001)

The following considerations are significant:

- The column profile "*expenditure on transport*" has several particularities. A small group of countries held large shares: Germany (32.2%), France (27.2%), Spain (13.6%). Other groups have similar shares: Ireland (0.5%), Greece (0.7%) and Czech Republic (0.8%); Romania (1.3%) and the Netherlands (1.4%); Austria (2.0%) and Poland (2.4%); Sweden (3%) and Finland (3.9%). Moreover, some countries had an equal contribution (i.e. 0.2%): Belgium, Bulgaria, Estonia, Cyprus and Lithuania.
- The column profile *"expenditure on restaurants/café"* has the following characteristics: France (41.1%) and Spain (30.9%) held the highest participation rates. There were some countries with average values, i.e. Poland (8%), Finland (by 5.3%) and the Netherlands (3.3%), but also Romania (2.3%) and Greece (2.4%). Other groups of countries held low and equal shares, i.e. Estonia and Cyprus (0.3%), Latvia and Hungary (0.4%), Bulgaria and Croatia (0.7%).
- The column profile "*expenditure on accommodation*" has the following features: Germany (33.7%), France (23.2%), Spain (11.2%) held high shares. Other groups of countries held similar shares, i.e. Greece (0.4%), Belgium (0.5%) and Slovakia (0.6%); Czech Republic (0.9%) and Ireland (1.0%); the Netherlands (2.8%) and Poland (3%); Austria (3.8%) and Sweden (4%), Italy (10.1%) and Spain (11.2%), while others held equal shares, i.e. Bulgaria and Slovenia (0.2%); Hungary and Romania (0.7%).
- The column profile "*expenditure on durables*" shows the following features: Germany (42.5%) and France (37.1%) had the highest participation rates. Some countries held average shares, i.e. Spain (6.8%), Sweden (5.2%) and Finland (3.1%). There were also some groups of countries with average and similar shares, i.e. Belgium (0.4%) and Lithuania (0.5%) or low and equal shares, such as 0.1% in Slovakia and Greece; 0.2% in Latvia, Malta and Poland.
- The profile column *"other expenditure"* has the following structure: France (31.7%) and Germany (24.5%) had the highest participation rates. Average and similar shares were held by Spain (12.5%) and Italy (11.1%). Similar shares were held by Austria (3.4%), Finland (3.5%) and Sweden (4.3%). Low and equal shares were held by Bulgaria and Slovenia (0.1%), Belgium and Croatia (0.2%), the Czech Republic, Ireland and the Netherlands (1.4%).

4. Conclusions

In this study, we processed the absolute values of the main categories of expenditures incurred in the domestic trips taken by the residents from 27 EU countries in 2016, without taking into account other issues such as: population size, the area and level of economic and social development of each country. Therefore, the research results are limited to quantitative interpretations regarding the size and structure of these expenditures.

At the same time, in terms of the interpretation of absolute values, but also of the shares held by each expenditure category, categorically these do not reflect their importance or impact on the tourists' satisfaction. For example, some expenditures may be high in some countries due to the high prices/ tariffs for some products/ services and not because tourists would consider them very important. Different factors can act on each expenditure category, combining in different ways from one country to another, from one period to another. In this study, the profiles of the main expenditure categories should be seen as limited only in terms of the size of the expenditures incurred.

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