



Analysis of aspects of the tourism development in Slovakia in the Context of the European Space

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ABSTRACT

This contribution focuses on analyzing the Health and Hygiene pillar of the Travel and Tourism Competitiveness Index (TTCI) (as one of the most important determinants influencing tourism development) in the context of the European area and on assessing how this aspect is time-dependent. The goal of our research was to find out whether there is a statistically significant relationship in the values of the Health and Hygiene pillar among the surveyed European countries in time. Besides that, we verified the assumption that if the country is ranked at the forefront within the GDP per capita indicator, this country will be also located on the forefront of the Health and Hygiene pillar of TTCI. We focus specifically on results for Slovakia. To verify the hypotheses we used Pearson correlation coefficient, linear regression analysis, Sign test, and Wilcoxon Matched Pairs test. The results show that variations in the country's level of health and hygiene change only slowly over time, and it is difficult to significantly modify them. We identified possible areas (the number of physician density and the number of hospital beds) for improving the country's health level, especially for the worst-rated surveyed countries. Moreover, we present here ranking of European countries within Health and Hygiene pillar for the period 2007-2017, as well as ranking within level of GDP per Capita (by purchasing power parity). Finally, we suggest recommendations for improvement for policy-makers, especially in the area of the motivation of health facilities, indication experiences, qualification of physicians, and quality of hospital facilities.

INTRODUCTION

Tourism is becoming one of the most dynamically evolving sectors of the economy in many countries and thus gaining ever greater economic and social importance (Mitrikova, Tomcikova and Lukacova, 2012). The benefits of tourism reflect in macroeconomic relations, in the various sectors linked to tourism and, last but not least, in the creation of new jobs (Senkova 2017).

Yalcinkaya, Dastan and Karabulut (2018) their study shows the positive impact of tourism revenue on the country's economic growth. As tourism is perceived as an industry, competitiveness also relates to this area. Competitiveness of the country often depends on the quality of the business environment. The main outcome and benefit of the different approaches to the quality assessment is the construction of the evaluation tool, which is the index of competitiveness. Vasanicova, Litavcova, Jencova and Kosikova (2017) reported that an international comparison of the main aspects and factors of the competitiveness of the tourism sector can provide us valuable information, allow easy identification of the country position and permit identify factors, on which depend revenue from tourism and destination development.

The tourism competitiveness is mainly the result of the quality of tourism products and the level of the country's competitiveness is determined by the interest of the visitor in the offered products. Klatikova and Gubova (2015) stated, focusing on achieving high quality means ensuring long-term and stable competitiveness. Each company in the travel and tourism industry should become ever more deal with effectively managing and improving quality (Han and Hyun, 2015).

An analysis of the various factors that create the regulatory environment of the country is one of the prerequisites for the sustainable development of the country's tourism industry (Jovanovic, Jankovic-Milic and Ilic 2015). Ringbeck and Gross (2007 in Jovanovic, Jankovic-Milic and Ilic, 2015) stated that the most important factors affecting the tourism competitiveness in a country are: *“political stability, high safety, and security standards; investment possibilities in this industry through the adoption of suitable policy rules and regulations; high health and hygiene standards for the citizens and tourists; and the application and monitoring of environmental regulations”*.

For that purpose, the Travel and Tourism Competitiveness Index (TTCI) has been developed, which does not show the list of countries attractive for the tourists but stands for the index for the measuring of factors, which contribute to the travel and tourism development. For many tourists, the level of healthcare and hygiene in a given country has a significant impact on the choice of tourism destination and on planning a visit to this country (Jovanovic, Jankovic-Milic and Ilic, 2015).

Therefore, the presented paper focuses on assessing the health and hygiene factor as a selected aspect influencing the tourism development and tourist arrivals in a country. In particular, we study whether, in the tourism industry, it is possible to influence the competitive position of European countries in the area of health and hygiene in a given period. In addition, according to competitiveness, we find out which particular areas of mentioned pillar are the most important. Supplementary, we examine whether there can be a connection between a country's ranking compiled on the basis of health and hygiene level and on the basis of GDP value. This paper contains the theoretical framework as well as the summary of the empirical results of the research and analysis, followed by the conclusion and the bibliography.

1 THEORETICAL FRAMEWORK

Analysis of aspects and determination of factors that influence tourism development and improving the competitiveness of tourism is often the aim of the research. According to Khoshkhou, Nadalipour and Poujam (2015), the most detailed model specified Ritchie and Crouch (2003), who developed a comprehensive model of destination competitiveness and sustainability. The purpose of this model is to provide a specific method or instruction, how to create successful destinations by developing and presenting a conceptual model of destination competitiveness that recognizes the importance of sustainability for long-term success.

Kayar and Kozak (2008) evaluated in their research 13 factors of destination competitiveness and compared the competitiveness levels of EU countries. They tried to find the more or less effective determinants of destination competitiveness. The results of their analysis showed that air transport infrastructure, natural and cultural resources, ground transport infrastructure, and health

and hygiene are factors that most affect competitiveness and tourism development.

Petrovic et al. (2018) studied the sustainable development of the Serbian and Slovenian countryside. In this paper, the authors identified the main rural tourism competitiveness as one of the essential factors of rural development. It has turned out that the main aspect affecting competitiveness in tourism is not just the friendliness of residents towards visitors and easy communication between them but also quality of infrastructure and health facilities.

Study of authors Joshi, Poudval and Larson (2017) investigates the relative contributions of sociopolitical, natural and cultural characteristics and national tourism policies to international tourism growth. Their results prove, as in the mentioned researches, that international tourism receipts "are more responsive to policies and regulations favoring tourism, an abundance of natural resources, richness in cultural heritage, and health and hygiene than to infrastructure, safety, price competitiveness". Their findings thus point to the key aspects of tourism development.

Assessment of Health and Hygiene pillar as one of the most important aspects of tourism competitiveness in a country is the result of the work of Lan, Wu and Lee (2012). In their paper, they stated that „TTCI overall scores are calculated with an arithmetic mean aggregation from the scores of the fourteen composite pillars with a subjective assumption of all the pillars having the same weights“. They claim that this is a subjective assumption and they try to replace it with a new one. Therefore, they suggest a new solution framework to explore an objective weighting system for the pillars. For this purpose, they use Expectation Maximization clustering algorithm and the Artificial Neural Network analysis. Their results show that the six most critical pillars contributing to the TTCI overall scores are tourism infrastructure, ground transport infrastructure, air transport infrastructure, cultural resources, ICT infrastructure, and health and hygiene.

Identification the causes of tourism performance was an intention of authors Hanafiah, Hemdi and Ahmad (2016). They examined whether tourism's core resources, destination management, tourism prices, and globalization promote tourism performance. To this purpose, they used data of the number of international arrivals and tourism contribution to the gross domestic product. The results of their analysis showed that air transport infrastructure, health and hygiene, safety and security and human resources variables are the strongest factors in influencing tourism performance. However, it turned out that economic disparities between countries caused biases in the tourism competitiveness indexing. Mentioned researches aimed to show the importance of examining the health and hygiene aspect as a very important pillar, which significantly contributes to the growth of competitiveness and the tourism development in selected areas.

2. METHODOLOGY

2.1 Research Aim and Hypothesis

The aim of the paper is to analyze the Health and Hygiene pillar, which is one of the important aspects of the tourism development, in the context of European area by using selected methods, and thus to assess how this aspect is time-dependent. Therefore, the main objective of the paper is to find out whether there is a relationship in the values of the Health and Hygiene pillar among the surveyed European countries in time, specifically between the years 2007, 2008, 2009, 2011, 2013, 2015 and 2017. The partial aim was to find out if we can confirm the assumption that if the country is at the forefront of the GDP per capita by purchasing power parity (PPP) indicator, this country will be located on the forefront of the Health and Hygiene pillar. In view of the above objective, we formulated the following hypothesis:

H1: We assume that there is a statistically significant relationship in the values of the Health and Hygiene pillar of the surveyed European countries between monitored years.

H2: We assume that there are statistically significant differences in the position of European countries within the Health and Hygiene pillar and within the position of the GDP per capita (PPP).

2.2 Research Background and Research Sample

The survey sample consisted of 36 countries within the European space, for which the Health and Hygiene pillar values of TCI and GDP per capita (PPP) were available in the years 2007, 2008, 2009, 2011, 2013, 2015, and 2017. Countries such as Russian Federation, Cyprus and Turkey do not enter in the analysis, despite the fact that the part of their area is located in Europe. For some European countries, TCI values and its pillars are not known, therefore, in our analysis, Lichtenstein, Belarus, Andorra, San Marino, Vatican, Moldova are not, too.

The Health and Hygiene pillar is part of the first of three subindexes of TCI, which measure the factors and policies that make it attractive to develop the tourism sector in different countries (Crotti, Misrahi 2017). This pillar is made up of a number of individual variables.

In 2007, dataset included both hard data and survey data. The survey data was part of the first subpillar that evaluated „Government efforts to reduce health risks from pandemics”. Health and hygiene pillar, further, consisted of subpillar “Physician density”, which measures the number of physicians per 1,000 people in the country. Physicians are defined as graduates of any faculty of medicine who are working in the country in any medical field, it means in practice, teaching or research. Next, subpillar “Access to improved sanitation” refers to the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained. The last subpillar, in 2007, was “Access to improved drinking water”. This subpillar is given as a percentage of the population with reasonable access (the availability of at least 20 liters per person per day from a source within 1 kilometer of the dwelling) to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rain-water collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs (Blanke and Chiesa 2007).

In 2008, the methodology of TCI significantly changed, and this change impacted the Health and Hygiene pillar. Since 2008, it does not comprise survey data, but only hard data of three mentioned subpillars and one new pillar, “Hospital beds”, was created. New subpillar tells about the number of hospital beds per 10,000 population. Since 2015, this sub-pillar includes inpatient beds available in public, private, general and specialized hospitals and rehabilitation centers (Blanke, Chiesa 2007; Crotti and Misrahi 2015).

In 2015, with a further change in methodology, the Health and Hygiene pillar also included two new subpillars. First, “HIV prevalence” is represented by a percentage of people aged 15–49 who are infected with HIV at a particular point in time, no matter when infection occurred. Second, “Malaria incidence” refers to the estimated number of new cases of malaria in the economy per 100,000 population. World Health Organization (WHO) has declared the area malaria-free (M.F.) or that it has included it in the supplementary list (S.L.) of areas where malaria has never existed or has disappeared without specific measures (Crotti and Misrahi 2015).

Into the Health and Hygiene pillar, all these data were obtained from the World Health Organization (World Health Statistics) and from the World Bank (World Development Indicators). All these pillars are considered important aspects contributing to the competitiveness of the tourism industry. As declared by Crotti and Misrahi (2015) from World Economic Forum, Travel and Tourism Competitiveness Report 2015, the access within the country to improved drinking water and sanitation is important for the comfort and health of travellers. And in the event that tourists do become ill, the country’s health sector must be able to ensure they are properly cared for, as measured by the availability of physicians and hospital beds. In addition, a high prevalence of HIV and malaria can have an impact on the productivity of the travel and tourism labour force and play a role in discouraging tourists from visiting a country.

3. RESEARCH RESULTS AND DISCUSSION

To verify the existence of a statistically significant relationship in the values of the Health and Hygiene pillar of the surveyed European countries between 2007, 2008, 2009, 2011, 2013, 2015 and 2017, we use Pearson correlation coefficient and linear regression. The resulting correlation coefficients, which are presented in the correlation matrix (Table 1), show us how the Health and Hygiene pillar is time-dependent. High correlation coefficient values may indicate that Health and Hygiene pillar values change very slowly in the time frame. This would mean that if the country has a high index of Health and Hygiene pillar, then it is likely that this country retains this high value easier. At the same time, if the index for a given country has a low value, no significant change in pillar value is expected in the next period.

Table 1. Correlation matrix

	2007	2008	2009	2011	2013	2015	2017
2007	1	0,7550	0,6628	0,6176	0,5820	0,3633	0,3672
2008		1	0,9035	0,9190	0,8322	0,6984	0,6917
2009			1	0,9523	0,8332	0,7406	0,7351
2011				1	0,9156	0,8292	0,8096
2013					1	0,8795	0,8539
2015						1	0,9565
2017							1

0 0.5 1

Source: own processing

From the resulting correlation coefficients, we can see that there is a high correlation between the observed periods. The highest relationships are shown between the values of pillars in consecutive years, specifically between 2015 and 2017; 2009 and 2011; 2011 and 2013; 2008 and 2009. Nevertheless, some deviations are apparent, indicating a possible significant shifting of a country within overall ranking. In *Table 2*, we present the specific ranking of the individual European countries (according to the value of Health and Hygiene pillar, and according to the value of GDP per capita (PPP)). We can note that even though the values of the ranking are not always the same, the first and last places remain relatively stable occupied by the same countries.

Data for 2015 may be slightly distorted due to the missing data of Ukraine and Bosnia and Herzegovina (BIH) because BIH has been one of the worst rated countries in recent years within the analyzed pillar.

Table 2. Ranking of countries within the Health and Hygiene pillar (and GDP per capita (PPP) – every second column) from 2007 to 2017

Country	2007		2008		2009		2011		2013		2015		2017	
Albania	31	36	34	36	35	36	36	36	36	36	34	35	36	36
Austria	12	8	3	8	4	7	2	6	1	6	1	6	3	8
Belgium	1	11	11	12	12	10	11	10	10	11	10	11	4	11
Bosnia and Herzegovina	30	35	33	35	34	35	35	35	35	35		36	34	35
Bulgaria	20	31	9	31	11	31	8	31	4	31	5	31	6	31
Croatia	32	24	23	24	24	25	24	27	23	29	13	29	13	30
Czech Republic	26	19	4	19	5	18	5	17	3	18	4	18	5	18
Denmark	14	9	27	9	23	8	27	7	27	7	22	7	25	6
Estonia	21	22	17	23	18	24	19	23	15	22	17	22	16	20
Finland	5	10	15	10	9	11	9	11	13	12	14	12	17	12
France	7	14	6	14	7	13	4	13	5	13	8	14	10	14
Germany	9	12	5	11	6	12	6	9	2	9	2	10	1	9
Greece	2	17	13	17	15	17	16	21	11	24	7	24	7	26
Hungary	10	25	8	25	8	23	14	24	6	25	6	26	8	25
Iceland	3	6	2	6	3	5	3	12	7	10	24	8	26	5
Ireland	23	4	20	5	19	6	20	5	18	5	32	2	35	2
Italy	4	15	16	15	22	15	22	15	22	15	15	15	22	15
Latvia	33	27	21	27	21	28	21	28	24	27	20	28	14	27
Lithuania	27	26	1	26	1	27	1	25	14	23	3	23	2	21
Luxembourg	17	1	18	1	17	1	17	1	16	1	16	1	18	1
Macedonia, Fyr	35	34	35	34	29	34	29	34	31	34	28	33	29	33
Malta	19	21	7	21	2	21	7	19	21	17	12	16	15	16
Montenegro	28	32	31	32	32	32	33	32	34	32	33	32	32	32
Netherlands	13	5	22	4	16	4	15	4	25	4	18	5	23	7
Norway	8	2	24	2	20	2	18	2	17	2	21	4	19	4
Poland	34	28	32	28	36	26	31	26	26	26	19	25	24	24
Portugal	15	20	25	20	25	20	25	20	20	20	25	20	20	22
Romania	36	30	36	29	33	29	34	30	33	30	29	30	27	29
Serbia	29	33	30	33	30	33	30	33	30	33	27	34	30	34
Slovak Republic	16	23	10	22	13	22	12	22	12	21	11	21	11	23
Slovenia	24	18	28	18	27	19	28	18	29	19	26	19	31	19
Spain	18	16	26	16	26	16	23	16	19	16	23	17	21	17
Sweden	11	7	19	7	28	9	26	8	28	8	30	9	28	10
Switzerland	6	3	12	3	10	3	10	3	9	3	9	3	12	3
Ukraine	25	29	14	30	14	30	13	29	8	28		27	9	28
United Kingdom	22	13	29	13	31	14	32	14	32	14	31	13	33	13

Source: own processing

Significant differences between values of 2007 and the other analyzed years were due to a change in methodology in 2008. Given the number of changes that have been made to the model in 2008, the rankings are not directly comparable with those in 2007. Another significant change in the methodology of the Travel and Tourism Competitiveness Index and in the composition of the Health and Hygiene pillar occurred in 2015, thus we can again see more significant differences between 2015 and previous year.

The best-rated countries (see light gray cellars in Table 2) in the Health and Hygiene pillar are Austria, Czech Republic, Germany, and Lithuania. Unfortunately, Lithuania falls to 14th place in 2013. This decrease was caused by the changed values in the evaluated subpillars "Access to improved sanitation" and "Access to improved drinking water", which were up to 2013 without the relevant data available and therefore not evaluated. The top-rated countries are complemented by Iceland, which was replaced by Bulgaria after a change in methodology. Among the worst-rated countries (see dark gray cellars in Table 2) are Albania, Montenegro, Bosnia and Herzegovina, and Romania that was replaced by Ireland after the change in methodology in 2015. Surprisingly, we found that one of the worst ratings has the United Kingdom. These bad values were mainly due to the low number of physicians and hospital beds. However, last countries in assessing the health and hygiene pillar have more space to improve their position. Although we have confirmed that the position of the country is changing very slowly over time, space for change is still available. The developed countries located on the forefront often achieve a maximum value of 100% in the variable of Access to improved sanitation and Access to improved drinking water and can be improved mainly in the areas of Physician density and Hospital beds. In the case of worse positions, however, there is space for improvement in all areas, and policy makers of these countries should mainly consider on this. In the first place, they should try to maximize the level of Access to improved sanitation and drinking water, and thus increasing their competitiveness not only through the TTCI assessment but also by raising the perception of the country level among foreign visitors.

Slovakia is at the end of the first third of the analyzed countries according to the value of the Health and Hygiene pillar, with similar positions as Switzerland or Belgium (except the year 2017). Compared with countries in the first places, Slovakia lags behind them mainly in the number of hospital beds, but room for improvement is also in access to improved sanitation and physician density. Its ranking according to GDP per capita is considerably worse, and this can also be attributed to its insufficient use of tourism opportunities (according to TTCI, travel and tourism industry employment, and travel and tourism industry GDP is only 2.5%).

To verify the significance of each correlation coefficient, we decided to use a linear regression model. *Table 3* presents the resulting characteristics.

The results in *Table 3* confirm the hypothesis H1 of the existence of statistically significant relationships of the Health and Hygiene pillar values of the given European countries between the considered years. Results show that variations in the level of health and hygiene in a country change only slowly over time, and it is difficult to significantly modify them. However, it is important to realize that this aspect of tourism development should be understood not only in global but also in its partial contexts. In many European countries, values of "Access to improved sanitation" sub-pillar and "Access to improved drinking water" sub-pillar are now reaching a maximum, so worst countries can catch up the best-rated countries. Therefore, we consider it appropriate to focus primarily on the subpillars of "Physician density" and "Hospital beds", which are the driving force of the given pillar.

Next, we tested the second hypothesis H2 by using Sign test and Wilcoxon Matched Pairs test. Even though sometimes differences are obvious (for example, Luxembourg is the most powerful country according to GDP per capita, but it is ranked 16-18, taking into account the values of Health and Hygiene pillar), according to our results (*Table 4*), we cannot confirm the existence of statistically significant differences in the position of European countries within the Health and Hygiene pillar and within the position of the GDP per capita (PPP). We reject the H2 hypothesis. It

follows that we can confirm the assumption that if the country is at the forefront of the GDP per capita by purchasing power parity (PPP) indicator, this country will be located on the forefront of the Health and Hygiene pillar.

Table 3 Estimation of regression models

<i>Dependent variable</i>	<i>Independent variable</i>	<i>Const. α</i>	<i>Coefficient</i>	<i>p-value</i>	<i>R²</i>	<i>White's test for heteroskedasticity</i>
HaH 2017	HaH 2015	0.4904	0.9263	0.0000	0.9149	0.3686
HaH 2017	HaH 2013	2.4540	0.6247	0.0000	0.7292	0.9311
HaH 2017	HaH 2011	3.1118	0.5121	0.0000	0.6555	0.3047
HaH 2017	HaH 2009	3.6743	0.4228	0.0000	0.5404	0.0023
HaH 2017	HaH 2008	4.2591	0.3340	0.0000	0.4785	0.0054
HaH 2017	HaH 2007	5.3196	0.1692	0.0330	0.1348	0.0331
HaH 2015	HaH 2013	2.0974	0.6777	0.0000	0.7736	0.7409
HaH 2015	HaH 2011	2.8168	0.5540	0.0000	0.6876	0.0774
HaH 2015	HaH 2009	3.5214	0.4421	0.0000	0.5485	0.0000
HaH 2015	HaH 2008	4.1666	0.3443	0.0000	0.4877	0.0105
HaH 2015	HaH 2007	5.3064	0.1668	0.0347	0.1320	0.0582
HaH 2013	HaH 2011	1.2263	0.7917	0.0000	0.8384	0.0052
HaH 2013	HaH 2009	2.0869	0.6550	0.0000	0.6943	0.0000
HaH 2013	HaH 2008	2.8013	0.5492	0.0000	0.6925	0.0010
HaH 2013	HaH 2007	4.0464	0.3665	0.0002	0.3388	0.0486
HaH 2011	HaH 2009	0.8504	0.8659	0.0000	0.9069	0.0001
HaH 2011	HaH 2008	1.9425	0.7015	0.0000	0.8446	0.0000
HaH 2011	HaH 2007	3.6364	0.4498	0.0010	0.3815	0.0054
HaH 2009	HaH 2008	1.5732	0.7586	0.0000	0.8163	0.0001
HaH 2009	HaH 2007	3.1533	0.5309	0.0000	0.4393	0.0043
HaH 2008	HaH 2007	1.9676	0.7203	0.0000	0.5700	0.0113

Source: own processing

Note: In the last column, we present the p-values of the performed White's test for heteroskedasticity with null hypothesis: heteroskedasticity not present.

Table 4. Sign test a Wilcoxon Matched Pairs test for assessing differences between rankings

<i>Pair of Variables HaH & GDP in year</i>	<i>Sign test</i>			<i>Wilcoxon Matched Pairs test</i>		
	<i>Percent $v < V$</i>	<i>Z</i>	<i>p-value</i>	<i>T</i>	<i>Z</i>	<i>p-value</i>
2007	50.0000	-0.1667	0.8676	327.5000	0.0864	0.9311
2008	55.5556	0.5000	0.6171	331.5000	0.0236	0.9812
2009	57.1429	0.6761	0.4990	311.0000	0.0655	0.9478
2011	52.9412	0.1715	0.8638	295.5000	0.0342	0.9727
2013	53.1250	0.1768	0.8597	259.5000	0.0842	0.9329
2015	57.1429	0.6761	0.4990	306.0000	0.1474	0.8828
2017	60.6061	1.0445	0.2963	272.0000	0.1519	0.8793

Source: own processing

CONCLUSION

There are a lot of objective and subjective aspects, which influence tourism development of selected destination. The TTCl includes as many of these factors as possible. But what if a visitor prefers one particular factor when choosing a tourist destination? Health and hygiene can play a significant role for someone in deciding to visit the chosen destination. In this paper, as a key factor of the tourism development within the European area, we have decided to analyze the aspect of health and hygiene that is represented by the Health and Hygiene pillar of the TTCl. The results of the analysis show that the development of this aspect has only slowly changed over time. It is likely that countries with a high level of health and hygiene will keep this level in the years to come. Within the selected area, we identified possible areas for improving the health level, especially for the worst-rated countries within Europe. We think the most important areas to improve are the number of physician density and the number of hospital beds. It is important to note that it is not enough just to increase the number of graduated physicians, but it is also important to reduce the migration of physicians to other countries.

Assaf and Tsionas (2015) pointed out incorporating quality into the measurement of tourism performance. As is stated in Stefko, Gavurova and Korony (2016), healthcare system can be improved by many ways. We consider, the most important is the motivation of health facilities, indication experiences, qualification of physicians, and quality of hospital facilities. We further point out the statement about the dimensions of healthcare quality, which defined Maxwell already in the year 1984. They are access to services, relevance to need for the whole community, effectiveness for individual patients, equity (fairness), social acceptability, efficiency and economy (Maxwell, 1984). Each country should focus on these areas in improving the quality of healthcare, which will ensure increasing competitiveness. One of the specific areas of tourism is medical tourism. Even in this case, it is advisable to look at quality. Lunt, Horsfall and Hanefeld (2016) presented that the quality of medical staff, supporting services and administrative services are the most important dimensions related to medical tourism. They recommend ensuring road access to high-quality health services, and continuity of care. It is also sufficient to take a look at the national healthcare systems that as is stated in Dudin et al. (2017), reduce the incidence and spread of diseases and lead to an increase in life expectancy, but also inspire the global socioeconomic, scientific and technical progress. In addition, it is necessary to take into account the health system specifications and its main intention, which is the health support, health protection, and health restoration (Stefko et al., 2017).

In general, we can recognize that the health and hygiene area is made up of individual companies. Therefore, we recommend putting an emphasis on the performance of individual healthcare facilities. In this context, Mihalcová, Gallo and Pruzinsky (2017) implemented the specific methodology at the selected health facility in Slovakia.

In the context of analyzed "Health and Hygiene" subpillars, the most healthy travel environment in European area has Austria, the Czech Republic, Germany, and Lithuania. On the contrary, Albania, Montenegro, Bosnia a Hercegovina, Romania, alternatively Ireland, and surprisingly the United Kingdom is the worst. Slovakia ranked at the end of the first third of the analyzed regions. Its health and hygiene assessment is similar to that of Switzerland, which is perceived as a country with a high level of health (Blanke and Chiesa 2008).

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