DOMESTIC TOURISM, ITS POTENTIAL TO COMPENSATE THE OUTAGE OF INTERNATIONAL ARRIVALS CAUSED BY COVID-19 AND THE VULNERABILITY OF DIFFERENT GROUPS OF COUNTRIES (A CLUSTER ANALYSIS)

EL TURISMO NACIONAL, SU POTENCIAL PARA COMPENSAR LA INTERRUPCIÓN DE LAS LLEGADAS INTERNACIONALES CAUSADA POR LA COVID-19 Y LA VULNERABILIDAD DE DIFERENTES GRUPOS DE PAÍSES (UN ANÁLISIS DE CONGLOMERADOS)

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ABSTRACT

Tourism is the most affected industry by the pandemic COVID-19 and will be probably also the last one to recover. International organizations UNWTO, WTTC, and others suppose that domestic tourism will play a significant role in 2020 and after. However, domestic tourism is not a universal solution for all destinations. This work aims to identify groups of countries with different potentials of domestic tourism for survival during and for recovery of tourism after the COVID-19 pandemic and their economic vulnerability. Based on the literature, the factors of tourism development were identified, and the current state of domestic tourism was considered. For the identification of the decisive factors, a correlation analysis is conducted. For cluster analysis, four main types of variables are involved: (1) economic factors (GDP, GDP per capita), (2) non-economic factors (Travel & Tourism Competitiveness Index, domestic tourism history), (3) vulnerability of the economy from the tourism point of view (share of tourism on GDP, share on employment), and (4) tourism receipts and tourism expenditures connected as the tourism balance. Based on the data from 2018 and 2019 from 41 countries, the cluster analysis identified six groups of countries with different potential of domestic tourism to support the survival of the tourism businesses and drive recovery in the post-pandemic period.

KEYWORDS

Domestic Tourism Potential, COVID-19 pandemic, Tourism Recovery, Cluster Analysis

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RESUMEN

El turismo es la industria más afectada por la pandemia de COVID-19 y probablemente también será la última en recuperarse. Las organizaciones internacionales OMT, WTTC y otras suponen que el turismo nacional desempeñará un papel importante en 2020 y después. Sin embargo, el turismo nacional no es una solución universal para todos los destinos. Este trabajo tiene como objetivo identificar grupos de países con diferentes potenciales de turismo interno para la supervivencia durante y para la recuperación del turismo después de la pandemia de COVID-19 y su vulnerabilidad económica. Con base en la literatura, se identificaron los factores del desarrollo turístico y se consideró el estado actual del turismo interno. Para la identificación de los factores decisivos se realiza un análisis de correlación. Para el análisis de conglomerados, se involucran cuatro tipos principales de variables: (1) factores económicos (PIB, PIB per cápita), (2) factores no económicos (índice de competitividad de viajes y turismo, historia del turismo nacional), (3) vulnerabilidad de la economía desde el punto de vista del turismo (participación del turismo en el PIB, participación en el empleo), y (4) ingresos por turismo y gastos por turismo conectados como saldo turístico. Con base en los datos de 2018 y 2019 de 41 países, el análisis de conglomerados identificó seis grupos de países con diferente potencial de turismo interno para apoyar la supervivencia de las empresas turísticas e impulsar la recuperación en el período posterior a la pandemia.

PALABRAS CLAVE

Potencial de turismo interno, pandemia de COVID-19, recuperación turística, análisis de conglomerados

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1. Introducción. 2. Turismo interno y factores que influyen en el desarrollo. 3. Recuperación del turismo y vulnerabilidad de las economías - Rol esperado del turismo interno 4. Metodología 5. Resultados. 6. Conclusión. 7. Bibliografía.

1. INTRODUCTION

Tourism is vital for the success of many countries and their economies around the world. There are several benefits of tourism on host countries/destinations. Tourism boosts the revenue of the economy, creates thousands of jobs, develops the infrastructure of a country, and plants a sense of cultural exchange between foreigners and local citizens. The tourism industry is important for most countries but plays a different role in each of them. It can be said that the role of tourism is higher in developing countries in which it provides jobs, generates income, also diversifies the economy, protects the environment, and promotes cross-cultural awareness. World Tourism Organization (UNWTO, 2020a) recorded yearly growth until 2019 in international arrivals in all world tourist regions. Globally in 2009-2019, the average growth per year was 5,1%. According to World Tourism Organization (UNWTO, 2020b), tourism was the third-largest export category (after fuels and chemicals) and in 2019 accounted for 7% of global trade. For some countries, it represented over 20% of their GDP. All that stopped in 2020. Tourism sector was one of the sectors most affected by the COVID-19 pandemic from the very beginning of 2020. All parts of the tourism vast value chain have been affected. In the countries, the dependence on tourism, economic

strength and travel habits of the inhabitants are different in the countries and will affect the future development. In smaller developing countries, tourism has accounted for about 30 – 75 % of their GDP and an even higher share of exports. Without international tourists and government assistance, businesses can hardly survive. A different picture is in the strong economies of western countries where traveling is part of the lifestyle.

Different international tourism organizations (UNWTO, 2020b; OECD, 2020) adopted different scenarios of policies to overcome the crises and restart tourism. Among those policies were: restoring traveller confidence, supporting tourism businesses, promoting domestic tourism, and supporting the safe return of international tourism, providing clear information to travellers and businesses, evolving response measures to maintain capacity in the tourism sector, strengthening cooperation within and between countries, and building more resilient, sustainable tourism. Many reports (EUROSTAT, 2020; WTTC, 2021) of the year 2020 showed that there were not only declines in international visitors spending (decreased by 69,4%), but also in domestic visitor spending (decreased by 45%). According to the World Tourism Organization (UNWTO, 2021a), international tourist arrivals (overnight visitors) plunged by 74% in 2020 over the previous year 2019 due to widespread travel restrictions and a massive drop in demand. There were differences in regions: in Asia and the Pacific, the decline was 84%, the Middle East and Africa 74%, and Europe and Americas 69%. “The year 2020 was the worst year on record for tourism”, as UNWTO Secretary-General Zurab Pololikashvili said (UNWTO, 2021b). The differences are also among countries. The most hit were countries with a higher contribution of the tourism industry to GDP, where lots of livelihoods and businesses are dependent on it. The devastating impact of the COVID-19 pandemic on global tourism has carried out into 2021 (UNWTO, 2021a). Many countries tightened travel restrictions in response to new virus outbreak. Mandatory testing, quarantines, and in some cases the complete closure of borders, will have the influence on international travel also in the year 2021. In addition, the speed and distribution of the vaccination roll-out have been slower than expected, further they will delay the restart of tourism.

The possible rebound in international travel is based on several factors, most notably: a major lifting of travel restrictions, the success of vaccination programmes or the introduction of harmonized protocols such as the Digital Green Certificate planned by the European Commission (EC, 2021) and the member states agreed on it (EU/Schengen, 2021).

2. DOMESTIC TOURISM AND FACTORS INFLUENCING THE DEVELOPMENT

In many countries, domestic tourism is dominant in comparison to international flows, in terms of both size and economic contribution. However, there are still relatively few investigations on domestic tourism, despite its importance for many countries. Based on the available research, the conditions for development and tourism flows are considered to be similar to the ones for international tourism (Lim, 1997; Massidda, Etzo, 2012; UNWTO, 2020c). The most frequently mentioned factors (Horner 1996, Palatkova 2006, Petru 2007) that affect tourism are mainly the political situation of the country, as well as economic, demographic, ecological, legislative, social, and material-technical factors. Lim (1997) and more recent literature also (Can, 2016; Čerović et. al, 2015) distinguish two basic types of factors – economic and non-economic. Even if the economic factors play a significant role, they cannot explain the tourism development and flows in general (Massidda, Etzo, 2012). Therefore the non-economic factors must be involved as well.

The economic factors will be argued first. One of the most important factors is, of course, the income of the inhabitants. Seddighi and Shearing (1997), Garin-Muñoz (2009) and others (Li et al., 2005; Lyons et al., 2009) find that real income is one of the main determinants of domestic tourism. Income can be expressed in various ways. For example, income can be represented by the gross domestic product (Habibi & Rahim, 2009) or the gross domestic product (GDP) per capita (e.g., Allen et al., 2009). The coefficient confirmed by Garin-Muñoz (2009) for the logarithm of the number of overnight stays (per capita) as dependent variable on GDP per capita is 0.86, which is the strongest in the model for domestic tourism. This author confirms a heavy dependence of the international tourism on the economic situation in the country of origin too. In domestic tourism, Athanasopoulos and Hyndman (2008) argue that the effect is positive till a certain level. Though some research reveals that the inhabitants with growing incomes prefer foreign destinations to their home country. Costs of the stay in a destination are also considered as one of the decisive factors. Čerović et al. (2015) found out that the economic factors have even more significant effect on domestic travel than on international tourism, whereas Seddighi and Shearing (1997) and Garin-Muñoz (2009) show that domestic tourism is less sensitive to income and prices than the international. From an economic point of view, the size of the economy and country is also important. The smaller the economy is, the more dependent on international tourism.

Among non-economic factors effecting the tourism development and demand there are factors like climate (Taylor and Arigoni, 2009) and seasonality (Park et al., 2014). These do not apply for this research. The other factors are lifestyle and motivation of travellers (Gidebo, 2021), travel habits and habit persistence (Can, 2016; Garin-Muñoz, 2009), accessibility, and infrastructure of the destination (Wen, 1997) and others.

Travelling is mostly connected to learning new culture, activities in nature, experiences and relaxation. Motivation is one of the most important elements in the decision-making process (Swarbrook, 2007). Bayih and Singh (2020) reveals that the pull factors of motivation are significantly affecting the revisit intention as well as willingness to recommend the destination. Pull factors are usually represented by the cultural heritage, events and festivals and natural heritage. The country's attractiveness and competitiveness in tourism is measured using the TTCI (Travel and Tourism Competitiveness Index).

When choosing a destination, it is crucial that potential travellers feel safe. According to Holloway (2012), safety and security are also essential when it comes to the image of a tourist destination and the satisfaction of visitors. Natural and health catastrophes have economic, psychological, and social impacts on people and places (Cohn et al., 2003). The twenty-first century has already witnessed three global pandemics in two decades, namely SARS-CoV, MERS-CoV, and Ebola, which, added to COVID-19, have challenged global health security (Gössling et al., 2020). Goeldner (2011) identifies fear and safety as one of the constraints to travel and this constraint will become even more important, especially in international tourism. This could, on the other hand, support the domestic travel. Important motivation for choosing home country for spending holiday is also familiarity and trust of the local environment, perceptions of the safer domestic environment and limitations imposed by respondents' vacation timing (Mansour et al.). All these reasons become even more important during the COVID-19 pandemic. The restrictions and hygiene standards were similar in all countries, mainly following recommendation of World Health Organization (WHO, 2020). During the COVID-19 crisis, travellers prefer their own country when choosing a holiday, where they know the security risk better.

The literature focuses mostly on the demand side of the market – tourists' motivation to spend holidays in their home country or the role of satisfaction. Due to COVID-19 pandemic, literature focuses much more on safety of travelling, the measures and tourism recovery strategies in different countries (Hussain et al., 2021; Tsiotsou et al. 2020). The situation in 2020 was unique, but somehow different in each country. Nevertheless, some similarities can be found according to the dependence of country's economy on tourism.

3. RECOVERY OF TOURISM AND VULNERABILITY OF THE ECONOMIES – EXPECTED ROLE OF DOMESTIC TOURISM

The domestic tourism has a positive effect on economic stability, especially in low- and lower-middle-income countries (Nguyen, Su Dinh, 2020). Domestic tourism was driving the recovery in several destinations in 2020 but in most cases only partially, as it was not compensating the drop in international demand. Among regions, respondents from Asia and the Pacific were the most positive regarding the contribution of domestic tourism to the recovery of destinations (UNWTO, 2020a). Domestic tourism will play again a very important role in the recovery of tourism in 2021 and onwards in individual countries. However, it might not be enough in many destinations. Kvítková, Petrů (2021) carried out research in V4 countries in 2020. Their research has shown that domestic tourism did not reach the total tourism figures of the year 2019, even in the summer month (high season, restrictions eased). It cannot be expected that domestic tourism in all countries, even increasing, can replace the decline in inbound tourism (arrivals of international tourists and their expenditures). The expenditures of local/domestic tourists are generally lower than those of foreign travellers. On the other hand, domestic tourism expenditure is 1.8 times higher than inbound expenditure in European Union. The largest domestic tourism markets in terms of expenditure are the United States, Germany, Japan, and the United Kingdom (UNWTO, 2020c). Statistical data do not include same-day trips, visits to friends and relatives as well as holidays/trips to second homes (private cottages, private countryside houses). Owning second homes or cottages greatly contributes to the development of domestic tourism outside its commercial form. Domestic tourism in this form is very developed, for example, in Sweden and France (Horner, 1996), as well as in the Czech Republic.

Many previous studies concluded that domestic tourism would recover first (Gössling et al. 2020; Wen et al., 2020). American trusted advisor company McKinsey & Company reported (McKinsey&Company, 2020) five key drivers to impact the recovery trajectory. This study has reported that domestic tourism will return to precrisis level (2019) around one or two years earlier than international travel. Multiple factors will drive this: fewer restrictions for travel within own country, more substitution options for non-air-based travel (such as cars and trains), anxiety, and a larger share of business travel. Provenzano and Volo (2021) confirm the same expectation with their model in the case of Lombardy. Domestic tourism is expected to recover faster due to the substitution of hotels toward vacation rentals, friends, and family in certain countries. However, this will rather lower the demand for collective accommodation facilities but can help the restaurants or attractions. Among mentioned measures, there is also the active promotion of domestic destinations.

The literature identifies several factors of vulnerability of the economy from the tourism point of view. The most important factor is the dependence on tourism in terms of GDP and employment share (Davradakis, 2020). Duro et al. (2021) involve in their model several

factors, for the usage in a broader geographical context, the tourism intensity and density, and current domestic demand are useful. Canh and Thanh (2020) found that the domestic tourism reduces economic vulnerability, while international tourism has the opposite effect. The share of domestic tourism is, therefore a factor influencing the vulnerability.

4. METHODOLOGY

This work aims to identify groups of countries with different potentials of domestic tourism for survival during and for recovery of tourism after the COVID-19 pandemic and their economic vulnerability. The process is divided into three stages: (1) identification of the factors, (2) confirmation of the relevant factors for domestic tourism, and (3) cluster analysis.

Stage 1: Based on the literature review, factors of tourism development were identified. For each factor a representative variable has been assigned. An overview of the factors and the respective variables are in the following table.

Table 1 Identified factors of tourism development and the respective variables for this research

Factor	Variable 1	Variable 2
Income of the inhabitants	GDP per capita	
Market and economy size	GDP	Inhabitants
Climate	Not applicable	
Seasonality	Not applicable	
Life style and travel habits	Tourism expenditures	
Attractivity of the country (motivation for travellers)	TTCI cultural score	TTCI natural score
Accessibility, infrastructure, and safety of the destination	TTCI score	

Source: Own creation based on literature review

The domestic tourism potential is represented by a mixture of these factors: attractivity of the country, domestic tourist trips per capita, and international tourism expenditures in previous period that potentially create more financial funds which can be possibly spent on domestic tourism in 2020 and further.

The vulnerability of the economy is represented by tourism share on GDP and employment.

Tourism expenditures represent the travel habits and also the financial funds the inhabitants are willing to spend on traveling. Together with tourism receipts give us an idea about to which extent the receipts can be replaced by the domestic spending. For the analysis the connected variable is used, the tourism balance.

The data was tested for normality by Kolmogorov-Smirnov's and Shapiro-Wilk's tests. The normality assumption was rejected due to the skewed distribution of most variables and the existence of outlying values. Therefore, the Spearman rank correlation coefficient was chosen as a good alternative to the classical Pearson correlation coefficient. The Spearman rank correlation coefficient is not influenced by the outlying values and does not carry any distribution assumption.

Stage 2: As the factors are usually analysed for international tourism, a correlation matrix was created and the relevancy to domestic tourism was examined. For correlation calculation, the relevant factors were chosen for cluster analysis.

Stage 3: The cluster analysis was conducted with the following criteria:

- GDP – how large the economy is
- GDP per capita – inhabitants' income – how rich the inhabitants are
- Tourism balance – what are the free financial funds while travelling abroad is restricted
- TTCI score – attractivity and comfort of travelling
- Tourism employment – vulnerability
- Tourism shares in GDP – vulnerability
- Domestic trips per capita – travel habits

For identification of groups, the hierarchical cluster analysis was used. The cluster analysis is finding similarities in the objects based on the measured variables. Ward's method of clustering was used because it makes clusters with minimum variability. All variables were standardized to have zero mean and standard deviation equal to one. The cubic cluster criterion (CCC) for the assessment of the optimal number of clusters was employed. All calculations were made in the SAS Enterprise Guide.

5. RESULTS

The analysis was based on data about 41 countries from years 2018 and 2019. All variables' data were available from the year 2019 except the domestic tourist trips. The main data sources were the World Bank, OECD, UNWTO, World Economic Forum (TTCI). The Spearman correlation coefficients were used due to the presence of outliers in the data.

The correlation matrix confirmed a relationship between most of the factors (represented by above-mentioned variable) and current domestic tourism level. The economic factors and market size (GDP, GDP per capita, inhabitants) show a significant correlation with domestic tourism variables.

Table 2 Economic factors and market size and the correlation with domestic tourism variables and travel habits

	Domestic tourist trips	Domestic trips share	Domestic T trip per capita	Tourism expenditures
Inhabitants	0,76 (0,00)	0,50 (0,00)	-0,12 (0,47)	0,55 (0,00)
GDP	0,84 (0,00)	0,50 (0,00)	0,33 0,03	0,92 (0,00)
GDP per cap	0,06 (0,71)	-0,03 (0,84)	0,61 (0,00)	0,48 (0,00)

Source: Own calculations

Higher GDP leads to more domestic trips in general. The correlation coefficient 0,84 and the p-value 0,00 reveal a significant effect not only in relative terms (GDP per capita), but also in absolute numbers representing the size of the economy. Higher GDP also reduces the

tourism dependence on international arrivals as the share of domestic trips shows a positive correlation with GDP.

Higher GDP per capita leads to higher number of tourist trips per capita. Correlation coefficient 0,61 and the p-value 0,00 confirm a significant effect of GDP per capita. It can be assumed that the higher GDP per capita, the better position of domestic tourism in the country in terms of frequency with which residents participate in domestic tourism. That creates a good potential because the inhabitants are used to travel in the home country.

Higher GDP leads to higher tourism expenditures of the country (and creates more financial funds to be spent on domestic tourism in 2020). The analysis confirmed a significant effect of GDP on higher tourism expenditures of the country. The correlation coefficient 0,92 and the p-value 0,00 reveal a very strong relationship. It can be assumed that the higher GDP the more traveling is a part of the lifestyle and inhabitants spend more money on travelling. This is also an important moment for the potential of domestic tourism for the near future. With the growing GDP traveling becomes a need and that creates an opportunity for domestic tourism.

Based on the analysis, we can assume that the economic factors play an important role in the domestic tourism position in the industry. The size of the economy itself is an important predisposition to survive the crisis. During the foreign travel restrictions, thanks to domestic tourism, such an economy can recover earlier. The wealth of the inhabitants (represented by GDP per capita) positively affects the participation frequency in domestic tourism. Therefore, this factor will play a significant role in the recovery as well.

Tourism attractivity of the country and the accessibility and infrastructure are confirmed to be relevant for the domestic tourism.

Table 3 Non-economic factors and the correlation with domestic tourism variables

	Domestic tourist trips	Domestic trips share	Domestic T trip per capita
TTCI score	0,56 (0,00)	0,18 (0,26)	0,63 (0,00)
TTCI Natural	0,49 (0,00)	0,30 (0,06)	0,09 (0,57)
TTCI Cultural	0,78 (0,00)	0,39 (0,01)	0,15 (0,34)

Source: Own calculations

The most important non-economic factor is the level of destination (country) accessibility and infrastructure represented by the TTCI score. The TTCI score comprises the general development level, safety and security, health etc. This factor has a positive correlation with domestic tourist trips and domestic tourist trips per capita as well. The correlation coefficients 0.56 and 0.63, respectively, are confirmed by the p-values. They convincingly support the construct that the higher TTCI score the country reached, the more attractive and comfortable the country is also for residents, and the more often the inhabitants travel in their home country. This is an important finding for cluster analysis. The natural and cultural sub-indexes are correlated with the total number of trips (0.49, 0.78) but not with the domestic tourist trips per capita. In conclusion, the natural and cultural wealth are correlated with the domestic market size but not with the inhabitants' travel frequency. Their correlation coefficients were non-significant. Therefore, in domestic tourism can be assumed

that the other factors have a more significant effect on the behaviour. As the TTCI score comprises the natural and cultural attractivity as well, it is used for the cluster analysis.

The attractivity also increases the international arrivals, and therefore, the effect on the share of domestic tourism in the industry is indeterminate. The correlation coefficient of the TTCI scores with tourism receipts are significant: for TTCI score 0.78, for sub-index natural wealth 0.53 and cultural wealth even 0.8.

In stage 3, the cluster analysis focuses on the domestic tourism potential, the vulnerability of the economy, and the identified factors. For testing the cluster analysis, Ward's method was used. Variables used for the cluster analysis were standardized:

- GDP – how large the economy is,
- GDP per capita – inhabitants income – how rich the inhabitants are,
- Tourism balance – what are the free financial funds while travelling abroad is restricted,
- TTCI score – attractivity and comfort of travelling,
- Tourism employment – vulnerability,
- Tourism share on GDP – vulnerability,
- Domestic trips per capita – travel habits.

The results of the cluster analysis are presented in Fig. 1, Table 4, and Table 5. According to the CCC and the pseudo t-square statistics, the cluster analysis made 5 groups, and the USA are making its own cluster. The biggest cluster is created by 16 countries, mostly from the Eastern Europe, but also Egypt, Chile, Russian Fed., Turkey, and Vietnam are included in it.

Fig. 1 Dendrogram

Source: own analysis

Table 4 Results of the cluster analysis, members of clusters

Cluster number/country						
1		2	3	4	5	6
Argentina	Peru	Czech Rep.	Canada	Australia	Austria	USA
Bulgaria	Poland	Estonia	Denmark	France	Croatia	
Colombia	Romania	Finland	Germany	Japan	Greece	
Egypt	Russian Fed.	Korea, Rep.	Netherlands	Spain	Italy	
Hungary	Slovakia	Malaysia	Norway		Mexico	
Chile	South Africa	Slovenia	Switzerland		Thailand	
India	Turkey		UK		UAE	
Kazakhstan	VietNam					

Source: own analysis

Table 5 Results of the cluster analysis, cluster averages

Cluster number	Counts	GDP	GDP per capita	Tourism balance	TTCI score	Tourism employment	Tourism share on GDP	Domestic trips per capita
1	16	556,49	9,83	-2,97	4,09	3,11	3,13	0,82
2	6	436,17	27,54	0,43	4,43	3,33	2,93	3,25
3	7	1541,46	57,84	13,92	4,96	5,00	2,79	2,14
4	4	2646,84	41,35	-24,48	5,33	3,98	3,68	3,28
5	7	707,55	25,54	-17,32	4,67	8,34	7,97	0,97
6	1	21433,23	65,30	-61,80	5,30	3,70	2,70	5,10
Total	41	1445,96	27,73	-5,57	4,54	4,46	3,91	1,77

Source: own analysis

The first cluster contains 16 countries with the lowest GDP per capita on average. Many of the countries have a positive tourism balance and are dependent on international travel, or the balance is close to zero. The only exception is Russia. The inhabitants do not travel much in their home countries. Their TTCI score is the lowest among the clusters. They are represented by a low level of travel comfort due to infrastructure development, low overall attractivity of the country as a destination and other factors related to tourism. Considering their tourism employment and GDP share, generally, these economies are not threatened by the international tourism outage. Due to low economic development, the people working in tourism can be threatened individually as the state aid and support will be probably low or none. The potential of domestic tourism to cover the losses is very low.

The second cluster contains six countries. They are mostly smaller economies with an average GDP per capita (Finland is an exception). The countries have negative or slightly positive tourism balance (only Malaysia has a significantly positive balance in the cluster). The tourism share on GDP or employment indicates that the economies, in general, are not very vulnerable. Even if the counties have still the TTCI score under average among the clusters, the inhabitants are used to travel in their home countries, and they should also have enough financial funds. Therefore, the potential of the domestic tourism is still high.

Countries in the third cluster have a high negative tourism balance, which means that the inhabitants spend abroad more than the country receives from international tourism. These countries have high TTCI overall scores and are above average in suitability for travelling. Their residents are used to travel not only abroad but also in their home country. Tourism employment on average is the second highest, but the average share on GDP is only 2.79%. An above-average GDP per capita, high tourism attractivity of the countries, and enough funds for travelling create suitable conditions and support a good position of domestic tourism during and shortly after the international closure. The economies are not vulnerable and are rather resistant to international travel outages.

The fourth cluster consists of four countries, large economies with a high standard of living (GDP per capita). The countries have the highest TTCI score, and the inhabitants travel in their home country with a high frequency. The countries' inhabitants are spending a large amount of money on international travelling. However, the receipts from international tourism are even higher, and the tourism balance is significantly positive. The

domestic tourism potential is high but will not be able to cover the outage of international receipts from the financial point of view. Concerning vulnerability, the tourism contribution is under 4%. The economies are large enough not to be threatened in general, and the countries are rich enough to help the businesses and people individually.

The fifth cluster consist of 7 countries. All of them important destinations and receiving countries with a positive tourism balance. Their tourism attractivity is above average, but the travel of inhabitants in their home country is very low. The GDP per capita is different in the cluster. Austria and UAE are well developed and rich countries. The potential of domestic tourism is relatively low as the inhabitants do not travel in their home countries much, and there will not be enough finance to cover the loss from international travel. The vulnerability of the economies is, on the contrary, high because of a high share of tourism on GDP and employment.

USA create the last cluster, have the third-highest GDP per capita after Switzerland and Norway, and with 5,3 has the second highest TTCI score, after France, Germany, Japan and Spain having 5,4. The USA is a large receiving country, and the economy might have problems filling the gap in the tourism industry from domestic sources because of the highly negative tourism balance. Even if the Americans are used to travel in their home country, the outage of tourism receipts from international travel is too high. On the other hand, the economy is large and well developed and can help businesses or individuals.

If the potential of domestic tourism in the created clusters is assessed, the best potential of domestic tourism to be the driver of survival and recovery is in cluster three. The second-best potential is in cluster two. These two clusters could compensate for the lost receipts with a potential increase in domestic tourism. The other countries will experience different difficulties. Clusters with low potential for domestic tourism are clusters one and five. The seriously threatened cluster is cluster five, which has a low potential for domestic tourism and high vulnerability of the economy.

6. CONCLUSIONS

Domestic tourism is seen as one of the ways out of the crisis caused by the COVID-19 pandemic. The recovery scenarios mostly expect domestic tourism to recover sooner than the international one. In addition to international travel restrictions, safety and familiarity with the home environment will also play a more important role in tourists' decisions. This paper aims to identify groups of countries with different potential of domestic tourism and its possibility to help tourism to survive during and recover after the COVID-19 pandemic, and their economic vulnerability. The factors of tourism development were identified with a literature review and their relevancy for domestic tourism was tested. The correlation analysis confirmed the importance of most of the factors as the literature suggests. Regarding the economic factors, the paper comes to similar conclusions as the reviewed literature. Economic factors play an important role in domestic tourism and increase the domestic trips frequency and the number of domestic tourism trips. The tourism attractivity of the country represented by TTCI also plays an important role in the participation of the inhabitants in domestic tourism. However, the overall TTCI score is more significant than the sub-indexes of natural and cultural wealth. It leads to the assumption that the other TTCI components have a more significant effect on domestic travel.

Based on the cluster analysis, there were identified six groups of countries. Only two created groups have economic and tourism conditions to replace the outage of international

tourism with domestic tourism. From the analysed countries, domestic tourism has the highest potential in Canada, Denmark, Germany, Netherlands, Norway, UK, and Switzerland.

The research is based on data from 2018 and 2019, collecting data from several sources. Unfortunately, the methodologies of data collection are different and do not ensure full comparability of the data. The data for each factor was collected from one source for all the countries. Therefore, the correlations and statistical tests are not influenced by this fact. Availability of the 2020 data will bring new insight, especially results from the summer months in the northern hemisphere. Here the season is high in July and August, and the travel restrictions were eased in these months.

Domestic tourism is less researched than international one despite it creates a significant contribution to tourism in many countries. Domestic tourism is mostly researched from one country's perspective. The novelty of this research is in the international approach and in the application of the current situation. Considered that the world is completely locked for the first time ever, the research brings a little insight into the potential ability of the countries to cope with the travel restrictions.

The results can help the practitioners to make decisions about supporting the domestic tourism. These decisions will depend on vulnerability and domestic market characteristics. The results can also help to manage the expectations and to prepare strategies for the future.

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