Importance of domestic tourism consumption and its connection to tourism employment

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Abstract: Recovery of tourism worldwide will be dependent on domestic tourism as it is stated by many world institutions engaged in tourism development. The aim of this paper is to determine the relationship between tourism consumption and its parts and tourism employment. For the purpose of this paper, the employment generated by tourism consumption is calculated and examined. The first step on the way to fulfill the aim of the paper was the correlation between employment in tourism industries and tourism consumption provided. Consecutively, based on the result from correlation, the following calculation of employment generated by tourism employment was provided. As there was found strong correlation between the variables, the inner analysis of the correlation was provided. Domestic expenditures as one of the major parts of tourism consumption, were compared with tourism employment. The main results show how domestic tourism expenditures influence the existence of placement in tourism industries. Results also offer different scenarios in post-pandemic recovery of tourism in Slovakia with a huge dependence on domestic tourism.

Keywords: domestic tourism, tourism consumption, tourism employment, expenditures

JEL Classification codes: O18, O20, J21

INTRODUCTION

Until the beginning of 2020, tourism was characterized by the attributes of the most dynamically developing, continuously growing, potential sector of the world economy. The continuous growth of tourism in the last ten years has been higher than the growth of the overall world economy (UNWTO, 2020a). Tourism ranked third in the ranking of the highest export category and accounted for up to 50% of total exports for small developing countries (UNWTO, 2020a). According to the WTTC (2020b), the tourism industry was one of the best partners of governments in terms of creating new jobs and thus fighting unemployment. In 2019, tourism contributed 10% of the world GDP annually and generated one in five new jobs (WTTC, 2020a).

The turning point came in early 2020, when the influx of tourists worldwide dropped in connection with the spread of the COVID-19 virus. The year-round decline in foreign arrivals exceeded -74% compared to 2019 (UNWTO, 2020a). In 2020, global tourism was affected by the following steps: the WHO declared the spread of COVID-19 a global threat, the WHO declared COVID-19 a pandemic, the introduction of travel restrictions in all countries, 27% of the world maintained full border closures for other UNWTO countries (2020a). UNWTO (2020a)

predicts that tourism performance will return to the pre-thirty years ago, to 1990 levels. It also predicts a 70% to 75% drop in arrivals and the associated decline in spending of € 1.1 trillion and more than 100 million directly at-risk tourism jobs. Predictions of tourism development performance indicators were also published by the WTTC (2020c). The decrease in the arrivals of foreign tourists is estimated by the WTTC (2020c) at -41% to -73%, domestic tourists - 26% to -63%, and a decrease in jobs from 98 to 198 million.

The UNWTO (2020a) anticipates that inbound tourism will return to its original performance no earlier than 2024 while adding that the solution to overcoming the post-pandemic crisis is to support domestic tourism (UNWTO, 2020b). Several authors and world institutions, such as Altuntas & Gok (2021), Assaf & Scuderi (2020), Binggeli et al. (2020), Canh et al. (in press), OECD (2020), Škare et al. (2021), WTTC (2020c), endorse this view as well. Škare et al. (2021) state, in their research, that the greatest negative effects on employment and GDP in tourism will be felt in the first year of the pandemic, which will decrease in the following years. They expect tourism to start fully revitalizing five years after the pandemic.

The importance of domestic tourism is confirmed by many European and world countries. According to the World Travel & Tourism Council (WTTC, 2020a), up to 71% of activities in 2019 were domestic tourism, and according to the OECD (2020), up to 75% of tourism expenditures in the OECD countries come from domestic tourism and in Europe, expenditures on domestic tourism accounts for 1.8 times the cost of inbound tourism. Within the European Union, the share of domestic journeys in total journeys increased by 33% between 2005 and 2019 (Eurostat, 2020). In the global ranking of countries with the highest share of domestic expenditures in total tourism expenditures, it is Germany with a share of more than 85%. Domestic tourism is also thriving in countries such as Italy, with a share of domestic expenditures of more than 75%, and France with 65% (WTTC, 2020a). Since 2014, domestic tourism in European countries has contributed to the creation of GDP in tourism with a share of more than 67% (Statista, 2021). The trend of a growing share of domestic tourism can be expected in the forthcoming years as well.

In terms of the number of day trips and overnight stays, domestic trips in Slovakia covered 61% of all holiday and business trips in 2018 (The Statistical Office of the Slovak Republic (SOSR) - Satellite account of tourism in the Slovak Republic, the years 2013-2018, 2020). The share of expenditures in domestic tourism is 42% of total expenditures, which represents the largest contribution of expenditures to the economy among inbound, outbound, and domestic tourism (SOSR - Tourism Satellite Account of the Slovak Republic, the years 2013-2018, 2020). In terms of comparing the number of domestic and foreign visitors only in accommodation establishments, the share of domestic tourism is increasing. The share of domestic overnight stays in accommodation establishments exceeded 63% in 2018 and 65% in 2019 compared to foreign overnight stays (SOSR - Visitors and turnover of accommodation facilities by regions, 2021).

An employee working in the tourism sector usually serves both domestic and foreign tourists, as well as other users of the sector's services. Therefore, this paper uses the calculation of employment generated by tourism consumption to analyze the impact of tourism consumption on tourism employment in the case of the Slovak Republic. The paper aims to express the dependence between domestic tourism and tourism employment. Part of the contribution is the quantification of the annual consumption to maintain one job and the necessary number of domestic visitors to keep one tourism job and also a comparison of these data in the V4 countries.

1 LITERATURE REVIEW

The inflow of tourists, whether foreign or domestic, is related to the amount of total tourism consumption, which affects the revenues of tourism enterprises and, in connection with this, employment in tourism industries. The influence of the number of tourists on tourism employment was dealt with, for example, by Dimoska (2016) and Mustafa (2019). They examined the correlation between the number of visitors and tourism employment. Dimoska´s research (2016) showed a significant impact of the number of tourists on employment in tourism industries. With her research, she confirmed that there is a very strong correlation between the number of tourists and employment in tourism industries with r = 0.95. There is a direct relationship between the number of visitors and the number of jobs, which suggests that new jobs are being created as the number of tourists increases. Based on these results, we expect a comparatively strong correlation between visitors´ tourism consumption and tourism employment. This relationship is examined in more detail in this paper.

The influence of performance indicators on the economic growth of the country was dealt with by numerous authors such as Bento (2016), Eugenio-Martin et al. (2004), Holzner (2011), Kubičková et al. (2015), Lanza & Pigliaru (2000), Lee & Chang (2008), Nayaran et al. (2013), Tsung-Pao & Hung-Che (2020), and Tu & Zhang (2020). Lanza & Pigliaru (2000) examined whether the size of a country is related to economic growth due to tourism development. Canh & Su (2020) focused on the influence of domestic tourism consumption and the incomes of the country's population and found that the influence of domestic tourism has a positive effect, especially in low- to middle-income countries, but declines in high-income countries. Mora-Rivera et al. (2019) assess the influence of additional foreign income on the effect of domestic tourism consumption. Bazargani - Kiliç (2021) confirmed that competition in tourism is one of the most important drivers for the tourist influx and increasing GDP in tourism in all countries of the world. An overview of selected literature, dealing with the relationships between performance indicators for the development of domestic tourism in particular and tourism employment, is presented in Tab. 1.

Table 1 Overview of selected literature dealing with the relationships between performance indicators in tourism

Author	Method used	Coverage	Expected causalities	Main conclusions
Canh et al. (in press)	Theory of reasoned action (TRA), panel data estimation, PCSE model	124 countries over the period 1996–2017	economic uncertainty >> domestic versus outbound tourism and countries with different income levels	Economic uncertainty encourages domestic tourism while reducing outbound tourism in the global sample
Dimoska (2016)	Linear regression and correlation	Macedonia	number of tourist >> total number of employees	Increase of the tourism visits in the Republic of Macedonia results with increased total employment as well as increased employment in the sector of accommodation and food service activities
Hernández-Martín (2004)	Keynesian multipliers and input-output analysis	Canary Islands	tourism consumption >> import	Tourist consumption generates an external injection of expenditures that is transformed into domestic production and value added

Lee & Chang (2008)	Heterogeneous panel cointegration technique	OECD and non OECD countries, 1990-2002	tourism >> economic growth	On the global scale a cointegrated relationship between GDP and tourism development is substantiated. Tourism development has a greater impact on GDP in non OECD countries than in OECD countries
López & Arreola (2019)	Panel data and cointegration panel data	32 states of Mexico for the period 1999-2014	tourism >> tourism employment	Domestic tourism is the variable with the greatest impact on the generation of direct employment in the tourism sector
Mora-Rivera et al. (2019)	Propensity Score Matching (PSM) and Inverse Probability Weighting (IPW	Mexico, 2010-2016	international remittances >> domestic tourism consumption	Reception of remittances has a positive impact on domestic tourism spending
Mustafa (2019)	Correlation Analysis, Multiple Regression, and Residual test.	Sri Lanka, 1978-2017	tourism arrivals >> tourism direct employment and tourism earnings	Tourism direct employment and Tourism Earnings are directly related with tourists' arrivals
Bento (2016)	Time series cointegration methods	Portuguese regions	domestic and foreign tourist >>economic growth	Results are indicative of a causal link amongst domestic tourists and economic growth, and therefore this study confirms that tourism is an important source of economic growth

Source: Authors´ own

The influence of tourism consumption on tourism development in the country was discussed by the authors, of which we mention: Bazargani & Kiliç (2021), Canh et al. (in press), Canh & Su (2020), Hernández-Martín (2004), Michálková & Naňáková (2019), Mora-Rivera et al. (2019), Seghir et al. (2015). Seghir et al. (2015) examined the relationship between tourism consumption and the country's economic growth and found that tourism consumption has a significant impact on the country's economic growth.

As tourism consumption has an impact on economic growth, it is associated with employment and unemployment rates, thus the influence on the number of visitors and their tourism consumption should also affect the development of jobs in the destination. The impact of domestic tourism performance on tourism employment was also examined by López & Arreola (2019). Their research found that among the seven variables examined: number of domestic tourists, number of foreign tourists, occupied rooms, GDP development, exchange rate, average annual temperature, and human development index, the number of domestic tourists has the most statistically significant effect on job generation and economic growth.

Due to the specific nature of the tourism sector and the industries of which it is composed, there are many different interpretations of tourism employment. For the purposes of this paper, we follow the Tourism Satellite Account (TSA) methodology: Recommended Methodological Framework 2008 (OECD, 2017) and International Recommendations for Tourism Statistics 2008 (UNWTO, 2010), which define the sectors belonging to tourism stated in Tourism Satellite Account of Slovakia (SOSR, 2020) as follows:

Characteristic industries of tourism according to the methodology of TSA: IRTS 2008 (The International Recommendations for Tourism Statistics 2008) are defined in categories 1 to 10: 1...Accommodation for visitors, 1a...Accommodation services for visitors other than 1b, 1b...Accommodation services associated with all types of vacation home ownership, 2...Food- and beverage-serving activities, 3-6...Passenger transport services, 7...Transport equipment

rental, 8...Travel agencies and other reservation services activities, 9...Cultural activities, 10..Sports and recreational activities.

The quantification of employment in the tourism industries is based on the methodology of the TSA. The methodology of satellite accounts defines employment as the number of jobs in the tourism industries (* in the following text only employment in tourism industries) compiled as the sum of jobs in individual tourism industries, regardless of whether the services were provided to a domestic or foreign tourist. This is direct employment in tourism, it does not include secondary or induced employment in tourism (SOSR, 2020). Tourism consumption is the sum of expenditures on domestic tourism, expenditures on inbound tourism, domestic part of expenditures of tourists traveling abroad, and other components of consumption, such as imputed rents, social and natural transfers of government or non-profit organizations (SOSR, 2020).

By linking tourism consumption and employment in the tourism industries, we obtain employment generated by tourism consumption. In the results of this paper, we consider the employment generated by tourism consumption. It explains how many jobs exist due to the presence of visitors and their consumption in the tourism industries. This is the estimated part of employment in tourism industries, which corresponds to the consumption of products in tourism by visitors. The case studies of OECD countries presented in the publication Measuring Employment in the Tourism Industries - Guide with Best Practices (UNWTO & ILO, 2014) provide an overview of methodologies for compiling tourism employment according to the basic TSA methodology and their methodological deviations in regard to used input data and methodology adaptation to the country conditions. Some countries publish, in the tourism satellite accounts, employment in the tourism industries, and others publishing employment generated by tourism consumption, respectively both. Examples of countries that publish employment generated by tourism consumption are Czechia, Austria, Canada, Switzerland, the United Kingdom of Great Britain and Northern Ireland.

Employment generated by tourism consumption is calculated after compiling the supply side, otherwise called tourism consumption, and the demand side of tourism products using symmetric input-output tables (SIOT). The essence of the employment calculation lies in two assumptions:

    a)   Expenditures on tourism are allocated to each industry on the assumption that the expenditures on tourism for a given commodity are proportional to its supply in all industries. This assumption is the supply/demand ratio.

    b)   Consequently, the employment attributable to tourism demand in each tourism industry is calculated using the same ratios from point a). If, for example, the demand ratio in tourism at the outputs of the industry to its total gross output (at basic prices) is e.g. 50%, half of the industry's employment is allocated to tourism (UNWTO & ILO, 2014). This methodology reflects the use of demand shares in industry outputs in the formula no.2 (k_1 to k_{9-10}).

2 METHODOLOGY

The paper presents hypotheses and a research question.

Null hypothesis: H0: Tourism employment is not dependent on tourism consumption. r ≠ (0; 1)

Alternative hypothesis: HA: Tourism employment depends on tourism consumption. r = (0; 1)

V1: How does domestic tourism affect the existence of jobs in tourism in quantitative terms?

The application part of this paper is divided into three parts. The first part contains a correlation analysis between the various parts of tourism consumption and employment in tourism industries. The second part is focused on the design of a methodology and quantification of employment generated by tourism consumption. The third part analyzes the dependencies between employment generated by tourism consumption and tourism performance indicators with a focus on domestic tourism.

To confirm the relationship between tourism consumption and employment in tourism industries, which is key to the acceptance of the methodology for calculating employment generated by tourism consumption, we subjected H0 and H1 to statistical proof using the Pearson correlation coefficient. Correlation analysis was performed using Pearson correlation coefficient according to the formula:

$$r = \frac{N \times \sum x \times y - (\sum x) \times (\sum y)}{\sqrt{[N \times \sum x^2 - (\sum x)^2] \times [N \times \sum y^2 - (\sum y)^2]}} \quad (1)$$

Notes:

r..... Pearson correlation coefficient

N.... number of observations

$\sum x \times y$...the sum of the multiplied values of x and y

$\sum x$...the sum of x-values

$\sum y$...the sum of y-values

$\sum x^2$... the sum of the square of x-values

$\sum y^2$... the sum of the square of y-values

For Pearson correlation coefficient, if its value is (Lomax et al., 2013):

- between 0.0 and 0.3 .... low dependence
- between 0.3 and 0.5 ... moderate dependence
- from 0.5 ... high dependence

Six correlation analyses were performed. The first is the correlation between employment in tourism industries and tourism consumption, the second is the correlation between employment in tourism industries and expenditures in domestic tourism, and the third one is the correlation between employment in tourism industries and expenditures in inbound tourism. The following three correlation analyses were performed after converting employment in tourism industries into employment generated by tourism consumption. The analysis was performed to prove the relationship between tourism consumption and employment in tourism industries, reject hypothesis H0 and thus confirm the alternative hypothesis H1. Confirmation of hypothesis H1, and thus the dependence of tourism consumption on employment in tourism industries, allows the application of the calculation of employment generated by tourism consumption. According to the methodology (UNWTO & ILO, 2014), we created a formula for the conversion of employment in tourism industries grouped by NACE Rev.2 codes of economic activities in tourism to employment generated by tourism consumption in characteristic tourism industries - internationally comparable according to TSA SR as follows:

$$Z_p = z_1 \times k_1 + z_2 \times k_2 + z_{3-7} \times k_{3-7} + z_8 \times k_8 + z_{9-10} \times k_{9-10} \quad (2)$$

Notes:

Z_p....employment generated by tourism consumption in characteristic industries of tourism internationally comparable

z_1... employment in tourism industries - accommodation services

k_1... ratio of demand in the outputs of the accommodation services industry

z_2 ... employment in tourism industries – food-and beverage- serving activities

k_2. ... ratio of demand in the outputs of the food-and beverage- serving activities industry

z_{3-7}... employment in tourism industries – passenger transport and transport rental services

k_{3-7}... ratio of demand in the outputs of the transport and rental services industries

z_8 ... employment in tourism industries - travel agencies and other reservation services

k_8.... ratio of demand in the outputs of the travel agencies and other reservation services industry

z_{9-10}... employment in tourism industries - cultural, sports, and recreation services

k_{9-10}... ratio of demand in the outputs of the cultural, sports, and recreation services industry

Data on employment in the tourism industries were obtained from the tables of the Tourism Satellite Account of the Slovak Republic (SOSR, 2020) and the ratios of demand in the outputs of the industries obtained on request from the SOSR. Available data are for the years 2013 to 2018.

The third part analyzes the dependencies between employment generated by tourism consumption and performance indicators of domestic tourism. To compare the data on the required annual consumption in tourism per job, the number of visitors needed to maintain one job, we chose a comparison in the V4 countries.

We chose the following comparative criteria in the time series 2013-2018:

- • Tourism consumption according to the TSA methodology.

- • Expenditures in tourism according to the TSA methodology (same-day visitors and overnight visitors) in the division of domestic and outbound tourism.

- • Average expenses per visitor, which result from the total number of tourists (same-day and overnight ones) according to the TSA methodology.

- • Employment in the tourism industries and employment generated by tourism consumption according to the TSA methodology.

These calculations were compared with Czechia as the only country from the V4 countries with the data according to the TSA methodology in the required structure. At the end of the paper, attention was also paid to the calculation of employment indicators generated by tourism consumption and tourism consumption in the post-pandemic period.

3 RESULTS AND DISCUSSION

The basic premise for defining and quantifying employment generated by tourism consumption is well-known employment in tourism industries according to the TSA definition, which is the input variable of formula no.2. This employment is available from the Slovak Tourism Satellite Account. In this case, it is the employment in tourism industries, regardless of whether it was

created by the influence of tourism consumption or the consumption outside tourism. To declare the dependence between tourism consumption and employment in tourism industries and the use of the formula for calculating employment generated by tourism consumption for the case of the Slovak Republic is the dependence between the variables tourism employment, tourism consumption, and incoming and domestic tourism expenditures, which are the main components of consumption, subjected to a correlation analysis using the Pearson correlation coefficient. In this section, we do not take into account other parts of tourism consumption.

The dependent variable y in the formula is employment in tourism industries. The independent variable x is tourism consumption, in the next step, it is changed to inbound tourism expenditures and domestic tourism expenditures. The results of this analysis are contained in Tab. 2.

Table 2 Results of application of Pearson correlation coefficient

Y = employment in tourism industries	*Pearson correlation coefficient*
	r
for X = tourism consumption	0,86
for X = inbound tourism expenditures	0,73
for X= domestic tourism expenditures	0,86

Source: The SOSR data (2020), authors´ own calculations

Based on the results of the Pearson correlation coefficient, the expected correlation between employment in the characteristic tourism industries and tourism consumption is very strong. All coefficients reach values above 0.5, even above 0.7, which means a very strong dependence. The limits of this comparison are the number of observations, which is equal to 6, justified by the existence of a time series from 2013 to 2018.

In terms of comparing the correlation of employment in tourism industries with the inbound and domestic tourism expenditures, we can see that domestic tourism has a higher correlation than inbound tourism, although both types of expenditures have strong correlations above 0.7. The correlation between the number of visitors and the number of employed persons was also dealt with by Dimoska (2016) and Mustafa (2019) with comparable strong correlations reaching values above r = 0.9.

The hypothesis H0 is rejected by the strong dependence between employment in tourism industries and tourism consumption variables confirming the alternative hypothesis H1. By confirming the correlation between employment in tourism industries and tourism consumption, we continue to calculate employment generated by tourism consumption according to formula no.2. This is the part of employment in tourism industries (Table 2) that is in contact with the visitor and is, therefore, the result of the consumption of products in tourism. Employment in tourism industries is a larger set, which also includes the part of employment that is employed in tourism industries but does not come into contact with the visitor (visitor´s consumption in tourism). The calculation of employment generated by consumption in tourism industries is contained in Tab. 3.

Table 3 Results of calculation of employment generated by tourism consumption in the Slovak Republic, 2013-2018

EMPLOYMENT generated by tourism consumption	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*
Characteristic tourism industries (comparable internationally)	**64 075**	**63 478**	**67 517**	**69 671**	**71 635**	**76 250**
1 – Accommodation services	12 422	12 958	13 760	14 767	15 351	16 131
2 - Food-and beverage- serving activities	30 363	30 299	31 469	31 098	32 849	35 346
3 to 7 - Passenger transport and transport rental services	13 561	13 437	14 984	15 877	15 491	16 843
8 - Travel agencies and other reservation services	2 667	2 624	2 567	3 060	2 816	3 068
9 to 10 - Cultural, sports, and recreation services	5 062	4 159	4 738	4 868	5 128	4 861

Source: The SOSR data (2020), authors´ own calculations

In terms of the total number of employment generated by tourism consumption, there were 76,250 jobs in the tourism industries in Slovakia in 2018, which represents 3% of the total employment of the Slovak economy in 2018. Most jobs were in food-and beverage-serving activities with a ratio of 46% of employment in characteristic tourism industries. The lowest number of jobs was in travel agencies and other reservation services (4%). The number of jobs was comparable in accommodation services (21%) and the transport ones (22%). The number of jobs decreased slightly in 2014 but has been growing since 2015. This decrease was mainly due to a significant decrease in cultural, sports, and recreation services. In 2014, the food-and beverage-serving activities as well as the transport ones also decreased, and there was also a slight decrease in the services of travel agencies. Since 2013, only the accommodation services industry has seen a continuous increase in jobs.

In the next step, we compare the employment generated by tourism consumption with tourism consumption. This employment is analyzed first by tourism consumption and then by individual parts of consumption, i.e. inbound tourism expenditures and domestic tourism expenditures. In terms of the vertical axis of employment calculations (by tourism industries), according to the tourism satellite account, it is not possible to compare individual industries with tourism consumption, which are calculated in relation to the horizontal axis (tourism products) of symmetric input-output tables (SIOT).

We examine the effect of tourism consumption on employment in tourism industries using the Pearson correlation coefficient according to formula no. 1. The calculations are contained in Tab. 4.

Table 4 Results of the application of Pearson correlation coefficient

		Y = employment in tourism industries	Y = employment generated by tourism consumption
		X = tourism consumption	X = tourism consumption
Pearson Correlation Coeficient		0,86	0,89

Source: authors´ own calculations

From the results, we see that the correlations between tourism consumption, employment in tourism industries, and employment generated by tourism consumption are very high and when converted to employment according to formula No. 1, the degree of this correlation increases. We state that tourism employment is significantly affected by visitor consumption in the destination, in our case in the Slovak Republic. In the following table, we observe the effect of inbound and domestic tourism expenditures on employment generated by tourism consumption.

Table 5 Results of the application of Pearson correlation coefficient

		Y = employment in tourism industries	Y = employment generated by tourism consumption
		X = inbound tourism expenditures	X = domestic tourism expenditures
Pearson Correlation Coeficient		0,75	0,94

Source: authors´ own calculations

From the point of view of comparing the effect of expenditures on employment generated by tourism consumption, we see that expenditures on domestic tourism have a much higher correlation with employment generated by tourism consumption than expenditures on inbound tourism. The relation between domestic tourism expenditures and employment generated by tourism consumption is stronger and thus, the changes in domestic tourism expenditures have a greater effect on employment generated by tourism consumption than the changes in inbound tourism expenditures.

The subject of the following comparison is the effect of tourism consumption on employment generated by tourism consumption, as well as expenditures on domestic tourism and the ones on inbound tourism as the main parts of tourism consumption. By applying formula no. 2 we get the results for the years 2013 to 2018 contained in Tab. 6.

Table 6 Calculations of tourism consumption and its parts per one job

Slovakia – P.A.	2013	2014	2015	2016	2017	2018
Tourism consumption per 1 job position	58 181	59 274	68 888	74 495	70 769	68 456
Average tourism consumption per 1 visitor	86	84	87	86	91	86
Average expenditures of domestic tourism(DT) per 1 visitor	66	61	64	63	69	66
Average expenditures of inbound tourism (IT) per 1 visitor	93	102	96	105	101	105
Number of visitors needed to cover 1 job position	677	703	795	863	776	798
Number of DT visitors needed to cover 1 job position	882	979	1 073	1 188	1 020	1 037
Number of IT visitors needed to cover 1 job position	629	583	717	713	699	651

Source: The SOSR data on Slovakia (2020), authors´ own calculations

To compare the results of this paper, we have chosen a comparison with the V4 countries, as the countries that are closest to Slovakia in economic and geographical terms. Examining the data and methodologies of individual indicators in the V4 countries, we found that the only country that meets the comparison criteria is Czechia. In the case of Hungary, we lack information on the total number of visitors, same-day and overnight visitors, and the average expenditures per visitor according to the TSA methodology, as well as an incomplete time series ending in 2017. From Poland point of view, data on employment in the tourism industries and employment generated by tourism consumption, average expenditures per visitor according to the TSA methodology and an incomplete time series ending in 2015 are missing.

The results of calculations applied to the data of Czechia are part of Tab. 7.

Table 7 Calculations of tourism consumption and its parts per one job

CZECHIA-P.A.	2013	2014	2015	2016	2017	2018
Tourism consumption per 1 job position	51 646	52 743	55 713	59 956	66 587	66 385
Average tourism consumption per 1 visitor	84	83	86	86	92	94
Average expenditures of domestic tourism(DT) per 1 visitor	45	44	48	50	55	57
Average expenditures of inbound tourism (IT) per 1 visitor	194	191	185	179	186	181
Number of visitors needed to cover 1 job position	615	636	647	701	726	707
Number of DT visitors needed to cover 1 job position	1 136	1 190	1 150	1 199	1 202	1 162

Number of IT visitors needed to cover 1 job position	266	276	301	335	358	367

Source: Data of Czechia from the Czech Statistical Office-CZSO (2021)

DISCUSSION

Tourism consumption generated by the purchase of tourism products defined by the TSA methodology in 2018 had a total value of 5.2 billion EUR. According to our calculations, the total employment generated by this consumption in 2018 represents 76,250 jobs in industries characteristic (internationally comparable) in tourism. In 2018, the annual tourism consumption per job was EUR 68,456. From the TSA SR (SOSR, 2020), we know the average tourism consumption per visitor, which in 2018 reached 86 EUR. If we compare the annual tourism consumption per job with the average tourism consumption per visitor, we get an indicator that tells us about the required number of visitors to cover the tourism consumption per 1 job. In 2018, 798 visitors were needed annually to cover one job in the characteristic tourism industries. If we exchange tourism consumption for expenditures on domestic tourism in this calculation, we find out what number of visitors in domestic tourism would be needed to cover one job in the absence of other effects. In 2018, 1,037 visitors in domestic tourism would be needed annually to cover one job in the tourism industries. The calculation applied by the same principle for the expenditures from inbound tourism gives us the required annual number of visitors 651 to cover one job in the characteristic tourism industries.

In comparison with the data of Czechia and Slovakia within the calculation of tourism consumption per one job, both countries have relatively the same values of this indicator in terms of monitoring developments over time. When comparing the main outputs of Tab. 6 and 7, we see slight disproportions in inbound tourism in terms of the number of visitors needed to cover 1 job. In terms of the total number of visitors needed to cover one job with tourism consumption, it is equal to 707 for Czechia and 798 for Slovakia. Significant disproportions can be observed within individual types of tourism. Within Czechia, 1162 visitors of domestic tourism would be needed in 2018 and 1037 would be needed in Slovakia to cover one job in tourism, on the contrary, in terms of inbound tourism, only 367 visitors would be needed in Czechia and 651 in Slovakia, which is 40% more than in Czechia. This disparity can be attributed mainly to higher average expenditures per foreign visitor in Czechia, which in 2018 was up to € 76 higher compared to Slovakia. In Czechia, in 2021, this disparity can significantly affect the struggle of the tourism industries with the post-pandemic situation in tourism. Czechia benefits from inbound tourism to a greater extent than Slovakia and the precondition for the renewal of tourism is the dominance of domestic tourism and its economic strength (Assaf - Scuderi, 2020; Binggeli et al. 2020; Canh & Su, 2020; WTTC, 2020c; OECD, 2020; Altuntas et al., 2021; Škare, 2021).

If we calculated the data on the number of visitors needed for the existence of one job to the current situation in 2021 during the COVID-19 pandemic, then in the absolute absence of inbound tourism in Slovakia, tourism consumption would have to be covered by more than 79 million visitors in domestic tourism and in Czechia by about 200 million visitors in domestic tourism or the average expenditures per visitor in domestic tourism would have to increase rapidly. Calculating the data for 2018, the average expenditures in Slovakia would have to increase to € 140 per domestic visitor, in Czechia to € 133, in order to maintain the number of jobs in tourism in the absence of inbound tourism. If we take into account the decrease in the number of foreign visitors in Slovakia by about 60% (SOSR, 2021) and in Czechia by less than 70% (ČSÚ, 2021), then the share of foreign visitors would have to be covered by domestic tourism, and as a result the average expenditures on domestic tourism in Slovakia would have to be increased to approximately € 123, and in Czechia to € 110, to cover tourism consumption

while maintaining the number of domestic visitors. For Slovakia, this would mean an increase in average expenditures on domestic tourism by 83% and in Czechia by 133%.

In terms of this analysis and the absence of other influences, the following hypothetical situations could occur in Slovakia:

1. Average expenditures per visitor will increase at least twice, which causes a price increase of tourism products.

2. Domestic tourism will be increased and supported to the maximum and at least twice the number of Slovaks will travel within the country.

3. The number of domestic visitors will increase and the prices of tourism products will rise slightly.

4. The enterprise will diversify its business activity and the employment generated by tourism consumption will be covered by the consumption of other products outside tourism.

5. The government will give maximum support to entrepreneurs through aid schemes and will ensure only modest to no redundancies in the tourism industries, which have been most affected by the pandemic among all sectors of the economy.

6. Full redundancies in tourism staff will occur.

CONCLUSION

The answer to the research question "How does domestic tourism affect the existence of jobs in tourism?" is that domestic tourism accounts for a significant share of tourism consumption and thus affects the existence and maintenance of jobs in tourism. In terms of comparing annual consumption per job, we found that, in the absolute absence of inbound tourism, 1037 domestic visitors are needed per year to maintain 1 job in tourism with an average expenditure on domestic tourism of € 66 per visitor. Increasing average expenditures would also reduce the potential number of visitors needed to maintain a tourism job. Compared to Czechia, the need for visitors is lower, which indicates a higher tourism consumption of Slovaks on domestic roads than Czechs in Czechia.

From the point of view of correlation analysis, we can say that the employment generated by tourism consumption is highly dependent on tourism consumption and records very high values of correlation coefficients, especially in expenditures on domestic tourism. Its values reach more than 90%, which means a highly dependent relationship between variables. During the COVID-19 pandemic and subsequently after its overcoming, domestic tourism will play an integral role in the recovery of tourism in Slovakia. Great emphasis will be placed on the increased number of domestic visitors as one of the essential variables for saving jobs in the tourism sector.

The limits of the research problem in the part of the calculation of employment generated by tourism consumption per job are the impossibility of comparing the effect of tourism consumption according to tourism products on individual tourism industries. This comparison is not possible due to the different axes of the individual input variables in terms of the construction of SIOT tables. Tourism consumption is measured on horizontal axes by tourism products and employment on vertical axes by tourism industries. Another limit in connection with tourism consumption is the individual parts of consumption, a special part of which consists of other consumption items, which we did not take into account in this paper. When calculating consumption per job, we took into account only the presence of domestic and foreign visitors, we did not deal with other influences. Another limitation of meeting the sub-

target was the missing data for Hungary and Poland, to create a complete comparison of the V4 countries.

Since the results of this paper refer only to the direct effects of employment due to tourism consumption, we would suggest, in the follow-up research, also to the indirect and induced effects of employment generated by tourism consumption, which would create a comprehensive view of the effect of tourism consumption on the employment of the Slovak economy.

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