IMPACT OF SUBSIDIES FOR THE DEVELOPMENT OF TOURISM IN THE REPUBLIC OF MACEDONIA

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Abstract - In order to develop tourism in the last decade, the Government of the Republic of Macedonia has introduced a number of measures, and the most popular measure is subsidizing tour operators according to the number of foreign tourists brought in the Republic of Macedonia. This measure was introduced in 2011 and it gives results in the development of tourism in attracting foreign tourists. The purpose of this paper is to see in the structure of the arrived tourists how these measures really have reached their goal and whether these measures are applicable to all the countries for which these measures are intended.

Keywords - Arrived tourists, subsidies, development, nights.

I. INTRODUCTION

In order to develop tourism in the Republic of Macedonia, the Government have undertaken many measures and drafted national strategies. Moreover, the National Tourism Strategy of the Republic of Macedonia, from Kohl & Partner, was prepared as a result of the project "Drafting a national strategy for tourism development 2016-2021", implemented by the Ministry of Economy, which aims to provide support to the competent institutions in making sound decisions regarding the development of tourism in the Republic of Macedonia.

This report should be a continuation of the National Strategy for Tourism 2009-2013 prepared by the Government of Republic of Macedonia in 2009. The most popular of all tourism development measures introduced by the Government of the Republic of Macedonia is subsidizing tour operators according to the number of arrived foreign tourists in the Republic of Macedonia.

The subsidization of the number of arrived tourists in the Republic of Macedonia began in 2011, with a decision by the Government of the Republic of Macedonia to subsidize charter flights from the Benelux countries through tour operators Corendon and TUI. For each arrived tourist who will be accommodated in a categorized facility with a stay of at least three nights with an organized charter flight, the Government of the Republic of Macedonia pays a 65-euro subsidy.

This measure, together with the measure for opening commercial air lines through the low-cost airline Wizz Air, was the basis for the incentive and development of tourism in the Republic of Macedonia by subsidizing the arrival of foreign tourists in an organized way.
These measures were amended in 2013, 2014, 2015 and 2016 by amending the Rulebook on the manner, type and amount of the subventions (Official Gazette of the Republic of Macedonia 53/13, 147/14, 50/15 and 32/16). It is evident that throughout this period there is an increase in the number of foreign tourists in the Republic of Macedonia, but whether these measures have given the expected result for attracting foreign tourists from the desired destinations or there are some other parameters that influence the arrival of foreign tourists will be analyzed in this paper.

For this purpose, data on foreign tourists arrived by country of origin for years were taken from the website of the State Statistical Office and an analysis was made for the reviewed period 2010-2017 (according to the available data), and this analysis was then compared with the period of publication of the amendments to the Rulebooks on the manner, type and amount of the subventions (Official Gazette of the Republic of Macedonia 53/13, 147/14, 50/15 and 32/16).

II. ORGANIZED AND UNORGANIZED TOURISM DEVELOPMENT

In order to see the difference between the development of tourism with the introduced measures for tourism development and the regular development of tourism, this paper will analyze the differences in the data of incoming domestic and foreign tourists. For the organized arrival of foreign tourists, the Government of the Republic of Macedonia has taken measures, as previously stated, while no measures have been taken for domestic tourists.

Therefore, the comparison of the number of domestic and foreign tourists arriving in the country can best show whether there is or there is not any difference when measures are taken for development of tourism and whether these measures give the desired results.

Chart 1 shows the series of annual values of the number of domestic and foreign tourists arriving.

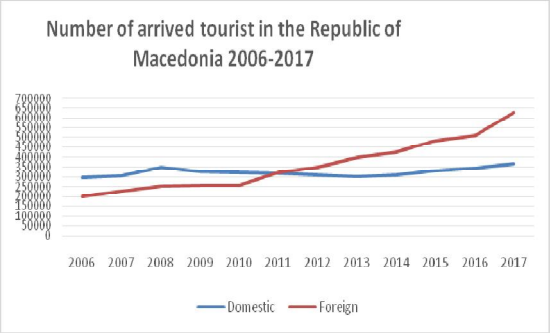


Chart 1. Number of domestic and foreign tourists in the Republic of Macedonia for the period between 2006 and 2017

From the data shown in Chart 1, the following can be concluded:

- In the series of domestic tourists there is no evident trend, but a variation around the average for the entire considered period. In the period after 2009, there is a decrease in the number of domestic tourists by 2014, due to the introduction of visa liberalization and the possibility to travel more easily in the countries of the European Union.
- In the series of foreign tourists, there is a positive trend, especially in the period between 2011 and 2017 when the measures for tourism development were introduced.

In order to see the seasonal characteristics of the series of incoming domestic and foreign tourists, a basic analysis of the time series of incoming tourists on a monthly basis will be made. Chart 2 gives the series of monthly data on the number of domestic and foreign tourists arriving.

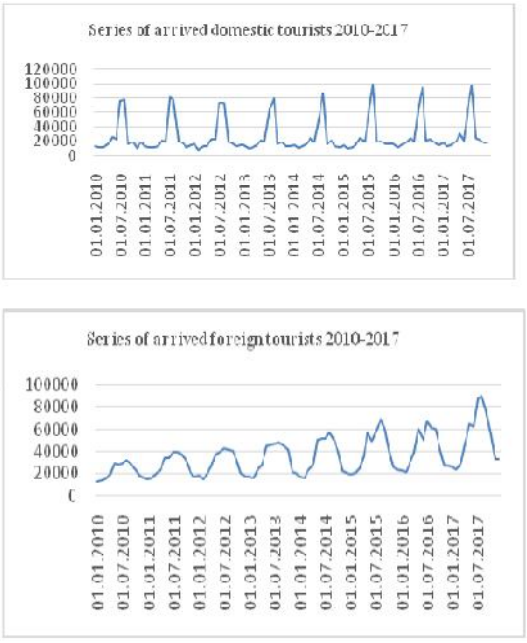


Chart 2. Number of domestic and foreign tourists in the Republic of Macedonia for the period between 2010 and 2017 on a monthly basis

It can be noticed with the series of foreign tourists that the seasonality is not as pronounced as with the series of domestic tourists. The increase and fall in the number of tourists among the series of foreign tourists is lower in the corresponding series of domestic tourists, where the peak of the number of arrived domestic tourists in July and August is significant. The visual display of the series points to a decrease in the seasonality of the series of arrived foreign tourists and evident seasonality without special measures taken in the series of incoming domestic tourists. In addition, analyzes will be made of the measures taken in the period 2011-2017 to attract foreign tourists from different regions of the world with different values of subsidies, as well as different values at different times from taking the subsidies.

III. ANALYSIS OF THE IMPACT OF SUBSIDIES ON TOURISM

Before the analysis for the countries covered by the subsidy measures is made, this paper will make a brief analysis of the series of arrived foreign tourists with monthly data in order to examine whether there is a structural change in the series itself, that is, whether the measures undertaken generally give a result or a structural change. For the series shown in Chart 2, it can be noticed that there is a trend, it has a seasonal component and has heteroscedasticity, that is, an increase in the variance over the years. This makes this series complex for analysis. In order to reject heteroscedasticity, a logarithmic transformation of the original series will be made, and then to obtain a stationary series, the already transformed series will be differentiated. According to the unit roots test, given in Table 1, it can be concluded that this modified series is thus stationary.

Table 1. Unit roots test for the stationarity of the series

Null Hypothesis: LOG_STRANSKI_D has a unit root
Exogenous: Constant
Lag Length: 11 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.945213	0.0001
Test critical values:	1% level	-3.511262	
	5% level	-2.896779	
	10% level	-2.585626	

T-statistics has a lower value than the critical value of 1%, indicating that the series is stationary. The same result confirms the likelihood of rejection of this hypothesis.

For the transformed series that it is confirmed is stationary, a model can be created. Table 2 gives the correlogram of the delays in the series.

Table 2. Correlogram of the transformed series

	AC	PAC	Q-Stat	Prob
1	0.438	0.438	18.806	0.000
2	0.261	0.085	25.551	0.000
3	-0.019	-0.200	25.586	0.000
4	-0.281	-0.297	33.575	0.000
5	-0.450	-0.278	54.267	0.000
6	-0.763	-0.635	114.52	0.000
7	-0.442	-0.101	134.93	0.000
8	-0.293	-0.169	144.01	0.000
9	-0.024	-0.162	144.07	0.000
10	0.226	-0.152	149.62	0.000
11	0.451	0.001	171.97	0.000
12	0.813	0.477	245.27	0.000

From the correlogram it can be concluded that the most important parameters are the first delay, that is, the existence of a serial correlation, the sixth and the twelfth. The twelfth delay indicates the seasonality of the series, and the first delay indicates the serial correlation. These two parameters should be considered when creating the model of the series. For this series, a non-structural ARIMA model with parameters AR (12) and MA (1, 12) is made. The model can be used for further analysis of the series, as well as for predicting future values. The modeling results are given in Table 3. It is important that there is possible existence of a structural interruption in the series itself. For this purpose an analysis of the structural interruption of the series was made, based on the created model and the original data of the series. The results of this test are given in Table 4.

Table 3. Model for the transformed time series of incoming foreign tourists

Dependent Variable: LOG_STRANSKI_D
Method: ARMA Maximum Likelihood (OPG - BHHH)
Sample: 2010M02 2017M12
Included observations: 95
Convergence achieved after 61 iterations
Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(12)	0.987575	0.010384	95.10707	0.0000
MA(1)	-0.700028	0.059483	-11.76849	0.0000
MA(12)	-0.237048	0.061889	-3.830183	0.0002
SIGMASQ	0.001440	0.000280	5.136457	0.0000

R-squared	0.884456	Mean dependent var	0.004510
Adjusted R-squared	0.880647	S.D. dependent var	0.112233
S.E. of regression	0.038774	Akaike info criterion	-3.20295
Sum squared resid	0.136809	Schwarz criterion	-3.09542
Log likelihood	156.1402	Hannan-Quinn criter.	-3.15950
Durbin-Watson stat	1.761118		

Table 4. Unit roots test for identifying a structural interruption in the series

Null Hypothesis: LOG_STRANSKI_D has a unit root
Trend Specification: Intercept only
Break Specification: Intercept only
Break Type: Innovational outlier

Break Date: 2011M12
Break Selection: Minimize Dickey-Fuller t-statistic
Lag Length: 10 (Automatic - based on Schwarz information criterion, maxlag=11)

The test points to a structural interruption in the series in the year when the measures for subsidizing foreign tourists in 2011 started. Accordingly, it can be concluded that these measures have resulted in a change in trends in the development of tourism in the Republic of Macedonia, but whether those measures had an impact on all the markets for which they were intended, further analysis is carried out in continuation. The analysis of the Benelux countries will be done firstly because the first measures for tourism development in 2011 were introduced for them. For these countries, an amount of 65 euros is provided for a tourist who will stay for at least three nights in the Republic of Macedonia. The graphic representation of the number of incoming tourists from the Netherlands and Belgium is given in Chart 3.

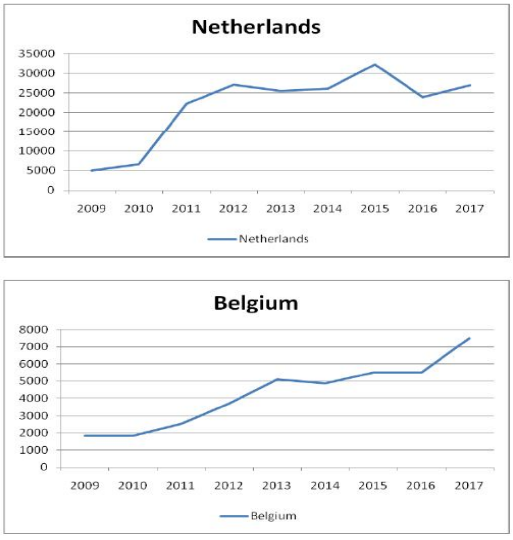


Chart 3. Graphic presentation of the number of arrived tourists from Belgium and the Netherlands for the period 2010-2017.

Source: State Statistical Office of the Republic of Macedonia

From the graphic presentation, it can be noticed that there is a significant increase in the number of tourists arriving from the Netherlands in 2011, and the trend after 2011 has no such characteristics in a significant increase in the number of arrived tourists. In 2011 compared to 2010 it has increased by 336%, and in the rest of the period from 2011 to 2017 the increase is only 21% of tourists from the Netherlands. There is also an overwhelming increase in the number of arrived tourists from Belgium. The rise in 2011 is only 36%, but by 2013, that increase is 276%. This market took a long time to achieve results close to those recorded with tourists from the Netherlands, but the trend of incoming tourists from Belgium remains positive. In April 2013 in the Official Gazette no. 53 a Rulebook on the manner, type and amount of subsidies is published on the basis of article 57 paragraph 2 of the Law on Tourism. In this rulebook are given possibilities for subsidizing the organizers of tourist trips that bring foreign tourists in the Republic of Macedonia with: bus transportation, air transport, charter transport, combined transport and operators organizing round tours in the region.
The bus transportation covers the following countries:

a) Albania, Bulgaria, Serbia, Kosovo, Greece, Montenegro, Bosnia and Herzegovina: - 10 Euros in denars equivalent per foreign tourist
b) Turkey, Romania, Hungary, Slovenia, Croatia: - 15 Euros in denars equivalent per foreign tourist
c) All other countries: - 20 Euros in denars equivalent per foreign tourist.

From the first group Serbia, Bulgaria and Greece are taken into consideration. The graphic representation of the number of arrived tourists from these three countries is given in Chart 4.

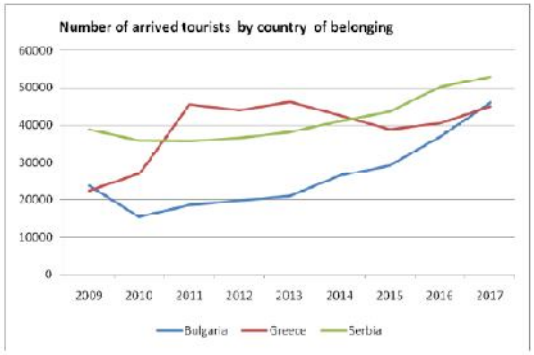


Chart 4. Number of arrived tourists from the neighboring countries of the Republic of Macedonia 2009-2017

From the presented data it can be noticed that in 2013 there was no significant increase in the number of arrived tourists in none of the neighboring three countries surveyed. With arrived tourists from Greece, there is an evident increase in 2011, which is not the result of such measures, and for tourists from Bulgaria there is a marked decrease in the number of tourists in 2010, and after that the number of arrived tourists is continually increasing. In 2009 there was an accident in Ohrid when 8 tourists from the Republic of Bulgaria died in a boat accident. However there is a big increase in 2015 and 2016. In the Official Gazette No. 50 of 30 March 2015 is written: "The amount of the subsidy on arrival of a foreign tourist from Bosnia and Herzegovina, Serbia and Bulgaria with a minimum of seven overnight stays with breakfast is 35 Euros in denars equivalent." In the Official Gazette No. 32 of February 23, 2016, "The amount of the subsidy after a foreign tourist arrived from Bosnia and Herzegovina, Serbia, Albania, Kosovo and Bulgaria, with a minimum of four overnight stays with breakfast, amounts to 35 Euros in denars equivalent". These measures are more attractive than the previous ones, and there is an evident increase in the number of foreign tourists arrived, especially from Bulgaria and Serbia. The Republic of Greece is not covered by the measures and therefore their number is not on the increase in the given years.
The change in the number of foreign tourists from the Scandinavian countries will also be given. They have also been subsidized since 2013. In the Official Gazette no. 53 of April 2013 is written:
"The amount of the subsidy upon arrival of a foreign tourist is:

a) from European destinations, except for the Benelux countries, Finland, Norway, Denmark, Sweden, Russia and Ukraine 25 Euros in denars equivalent
b) for the Benelux countries (Belgium, the Netherlands, Luxembourg), Finland, Norway, Denmark, Sweden, Russia, Ukraine, United Arab Emirates and Japan, the amount of the subsidy is 65 euros in denars equivalent. "

Chart 5 provides data on the number of foreign tourists arrived from Denmark and Sweden. These measures are combined with an increase in the number of direct flights from these countries.

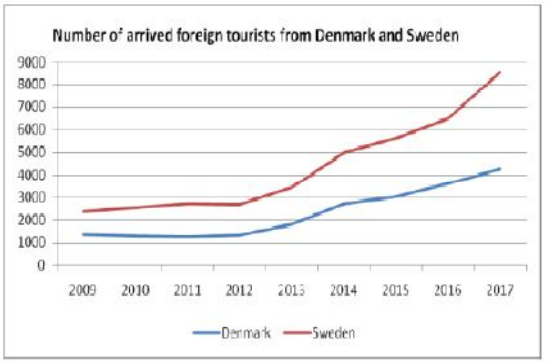


Chart 5. Number of arrived tourists from Denmark and Sweden to the Republic of Macedonia for the period 2009-2017

Source: State Statistical Office of the Republic of Macedonia

From the graphic representation of Denmark and Sweden it can be noticed that after 2013 there is an evident increase in the number of foreign tourists arriving in the Republic of Macedonia. For Denmark, the increase in the number of foreign tourists arrived in 2017 compared to 2012 is 322%, and for the same period the increase in Sweden is 326%.

CONCLUSIONS

On the basis of the whole analysis of the introduced measures for subsidizing the development of tourism in the Republic of Macedonia, it can be concluded that without exception for all the analyzed countries there was an increase in the number of arrived tourists. This is more evident for tourists who come organized by air transport, than for incoming tourists by bus. Certainly, the amount of subsidies is different for different countries. These measures are combined with the measures to open air lines from and to the countries for which subsidies are being provided. The analysis of the time series of arrived foreign tourists points to a structural change in the series in 2011, which is the year when the subsidies were introduced for the first time as measures for increasing the number of foreign tourists arrived in the Republic of Macedonia.

REFERENCES

[1] Official Gazette of the Republic of Macedonia No. 53, 2013
[2] Official Gazette of the Republic of Macedonia No. 147, 2014
[3] Official Gazette of the Republic of Macedonia No. 50, 2015
[4] Official Gazette of the Republic of Macedonia No. 32, 2016
[5] State Statistical Office of the Republic of Macedonia, Tourists and Overnights of Tourists by Country and by Years
[6] National Strategy for Tourism of the Republic of Macedonia, published by Kohl & Partner, 2016
[7] National Strategy for Tourism of the Republic of Macedonia 2009-2013, published by the Government of the Republic of Macedonia, 2009

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