IMPACT OF FINANCIAL CRISIS ON BLACK SEA TOURISM

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ABSTRACT: *This paper aims to highlight, using a linear regression model, how the antisocial measures (reducing wages, taxation of pensions, increased VAT rate), adopted by the government amid the global financial crisis, affect various aspects of life in Romania. In this respect, using a simple linear correlation, we analyzed the impact of the average wage in Romania on the number of days of accommodation and on the number of tourists staying in southern Black Sea coast hotel during 2004-2011. Analysis revealed a strong correlation (as detected by the correlation matrix) between the variables mentioned above and also a strong impact of the independent variable (average salary) on the two dependent variables (number of days of stay and the number of Romanian tourists staying in unit from 2004-2011).*

KEY WORDS: *Romanian tourism; global downturn; fiscal measures.*

JEL CLASSIFICATION: *I3; I38.*

1. INTRODUCTION

Throughout the process of understanding tourism development, the main attention has been usually focused on the more advanced and stable societies of Central Europe - all of which are very closely related to major Western European states, such as: Hungary, Czech Republic, Poland and Slovenia. Outside of the former Soviet Union is post-socialist Europe's least developed South Eastern Europe (SEE) with countries like Romania, Bulgaria, Albania and Croatia that have a considerable tourism potential, but are still being relatively neglected in the literature (Hall, 1998). With a lack of media recognition and inconsistency in macroeconomics policy, the region's image continues to be characterized by instability that usually has an impact on politics, economy, culture and tourism.

This study aims to investigate the impacts of financial and fiscal measures effects, taken by the Romanian authorities in the context of global downturn, on the

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Romanian Black Sea Coastline and I have chosen a very specific area, i.e. the southern part and namely a specific seaside resort Neptun – Olimp and also one of the hotels of it: Hotel Cocor.

The article has three parts: first part is a brief overview of Romanian as a tourism destination for its residents and more specifically it's about the development of tourism destination, the second part examines the impact of fiscal measures taken by authorities on the number of Romanian tourists and on the number of accommodation days, using a linear correlation, and the last part presents the conclusions of issues considered.

2. ROMANIA AS A TOURISM DESTINATION FOR ITS RESIDENTS

The importance of considering the destination as a unit had consequence in making a wide range of research based on certain issues in relation to the development of a destination. Therefore, existing research has paid attention to a large number of issues such as, for example, strategic destination planning (Formica & Kothari, 2008), dynamic destination management (Sainaghi, 2006), destination competitiveness, collaboration in tourism policymaking (Bramwell & Sharman, 1999), collaboration and community-based tourism planning (Jamal & Getz, 1995), collaborative destination marketing, destination marketing organizations (Gretzel et al., 2006) and destination governance.

Tourism destination development can be defined as the number of activities that take part in the development of an overall strategy for the destination generating value for the individual actors.

An overview of this new and improved strategy requires changes on the macro-level, improvements to the transport infrastructure and wider acceptance of reorganization and privatization. Further investment in entertainment facilities and other things that can increase the tourist season is of great benefit to Romania. It is also necessary to build smaller hotel facilities that can fulfill the requirements of individual tourists. Tourism can also highlight positive economic benefits over the entire community such as development in rural areas and diversification. Another major objective or task for any tourism destination is to continuously integrate resources and competencies distributed across a number of different actors, and change these configurations intro products and services that are demanded by customers (Rodriguez-Diaz & Espino-Rodriguez, 2008). This will involve activities spanning individual actors both in producing products and services and communicating these offerings to the market (Sheehan et al., 2007). Destinations may thus benefit from capabilities both in relation to how they communicate about their products and services to the market and in relation to the production of products and services. We argue that two distinct capabilities are especially important in this regard. These are: (1) destination image and branding (Hosany et al., 2007) and (2) utilization of distributed resources and competencies (Melian-Gonzalez & Garcia-Falcon, 2003).

Previous research has shown that destinations can benefit from building a consistent cognitive image based on shared attributes. The idea of a destination is not of much value if all companies and other stakeholders at the destination are only

concerned with their own organizational image in their communications with customers. An important task for all destinations is thus to develop a shared and consistent image and effectively communicate this image to the market (Buhalis, 2000). Forming and building an image of a destination that is shared by the actors at the destination is a prerequisite for developing a destination brand and building brand equity. In other words, a destination image should reflect the geographic region as well as the actors having activities, developing projects in the area.

From the previous argument, it can be acknowledged that unskilled and young people usually affected by the long-term unemployment can also benefit from tourism, because they eventually find a job in the area they seek, contributing to the tourism growth as well. However, tourism in the coastline area is in a close relation with the host community and individual projects that do not fit with cultural or symbolic values will have negative effects.

It is important to note that tourism may also impose various pressures on the host community, particularly during growth phases (Brown & Giles, 1994). In this context, the Romanian Government could focus more on the coastline tourism industry and implement it as a strategic sector in the Romanian economy.

3. THE IMPACT OF THE EFFECTS OF FINANCIAL MEASURES ON THE BLACK SEA COAST TOURISM

The impact of the established average income at the national level on the number of Romanian tourists as well as on their accommodation days can be analyzed with the help of simple linear correlation between the macroeconomic variable medium salary and the Romanian tourists accommodated in the unit as well as the number of the accommodation days /year of these tourists. Granger, the impact of the above mentioned is presented as follows, by using Eviews software package and the variables:

- Medium salary, which is the gross medium salary earned in the period analysed at the national level, as an independent variable;
- Accommodation days, which is the accommodation days /year of the Romanian tourists made in the analyzed unit , as a dependent variable;
- Number of Romanian tourists which is the number of Romanian tourists accommodated in the unit in the analyzed period, as a dependent variable.

The descriptive statistics of the variables is shown in table 1.

In the carried-out analysis of the above case study, the independent variable is represented by the medium salary while the dependent variables are given by the number of the accommodation days and the number of the Romanian tourists accommodated in the unit during the analysed period. As shown in the correlation matrix (Table 2), there is a fairly strong positive relationship between all the variables taken into account.

For highlighting the association of the utilized variables in the econometric calculation, I determined the matrix of the correlations between the variables.

Table 1. **Descriptive statistics of the variables**

The descriptive statistics of the variables			
Sample: 2004 2011			
	Medium Salary	Accommodation Days	Romanian Tourists Number
Mean	1482.25	21763.25	6013.625
Median	1578.5	23298	6097
Maximum	2022	31806	9262
Minimum	818	9722	2298
Std. Dev.	463.3717	7939.048	2686.635
Skewness	-0.25657	-0.249592	-0.160524
Kurtosis	1.475794	1.683228	1.611299
Jarque-Bera	0.862172	0.661025	0.677187
Probability	0.649803	0.718555	0.712772
Sum	11858	174106	48109
Sum Sq. Dev.	1502994	4.41E+08	50526050
Observations	8	8	8

Source: Own calculations with the help of Eviews programme

Table 2. The matrix of correlations between the analysed variables

MATRIX OF CORRELATIONS			
	MEDIUM _ SALARY	ACCOMMODATION _DAYS	ROMANIAN_ TOURIST- NR
MEDIUM_ SALARY	1	0.958484	0.949349
ACCOMMODATION_ DAYS	0.958484	1	0.976359
ROMANIAN_ TOURISTS NR	0.949349	0.976359	1

Source: Own calculations with the help of Eviews programme

For estimating the correlation between the medium salary and the other two indicators mentioned above, I will use the regression technique, applying the method of least squares for determining the parameters of the following regression equation for each variable.

$$Y = \alpha + \beta X$$

Y – is the dependent variable
X – is the independent variable
α, β – are the parameters of the regression equation.

The correlation between the medium salary and the accommodation days of the Romanian tourists.
By using the method of least squares, the regression equation between the two variables over 2004-2011 period is shown in table 3.
On the basis of the table above, the regression equation of the variables is:

ACCOMMODATION_DAYS=-2578.141+16.422*MEDIUM_SALARY

According to this econometric relationship, the correlation of the accommodation days of the Romanian tourists and the medium salary is proportional, that is a rise of 1 leu of the medium salary implies a modification in the same way of 16.422 accommodation days in that unit.

Table 3. The correlation between the medium salary and the accommodation days of the Romanian tourists

Dependent Variable: ACCOMMODATION_DAYS
Method: Least Squares
Sample: 2004 2011
Included observations: 8
ACCOMMODATION_DAYS=C(1)+C(2)*MEDIUM SALARY

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-2578.141	3080.121	-0.837026	0.4346
C(2)	16.42192	1.994477	8.233696	0.0002
R-squared	0.918692	Mean dependent var		21763.25
Adjusted R-squared	0.905141	S.D. dependent var		7939.048
S.E. of regression	2445.162	Akaike info criterion		18.65393
Sum squared resid	35872911	Schwarz criterion		18.67379
Log likelihood	-72.61571	Hannan-Quinn criter.		18.51998
F-statistic	67.79374	Durbin-Watson stat		1.702639
Prob(F-statistic)	0.000173			

Source: Own calculations made with the help of Eviews programme

The coefficient of determination for regression (R-squared) signifies the fact that 91.87% of the variation in the accommodation days is explainable by the modification of the medium salary.

The correlation between the medium salary and the number of the Romanian tourists accommodated in the unit

Estimating the parameters of the regression equation between the medium salary and the Romanian tourist number over 2004-2011 period, the following results are obtained (table 4).

According to the data in the table above, the regression equation between the analyzed variables is under this form:

ROMANIAN_TOURISTS_NR=-2145.182+5.504*MEDIUM SALARY

According to this econometric equation, the correlation between the Romanian tourist number and the medium salary is proportional, in the sense that a rise of 1 leu of the medium salary implies a modification in the same way of about 5.5 in the number of Romanian tourists.

The determination coefficient for the regression (R-squared) signifies the fact that 90.13% of the variation in the Romanian tourist number is the result of the modification of the medium salary in Romania.

I will further my analysis to the Granger causality for each pair formed in the five variables.

Table 4. Medium salary and Romanian tourist number Correlation

Dependent Variable: ROMANIAN_TOURIST_ NR
Method: Least Squares
Sample: 2004 2011
Included observations: 8
NR_TURISTI_ROMANI=C(1)+C(2)*SALARIU_MEDIU

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-2145.182	1148.627	-1.867606	0.1110
C(2)	5.504340	0.743773	7.400564	0.0003
R-squared	0.901264	Mean dependent var		6013.625
Adjusted R-squared	0.884808	S.D. dependent var		2686.635
S.E. of regression	911.8407	Akaike info criterion		16.68113
Sum squared resid	4988721.	Schwarz criterion		16.70099
Log likelihood	-64.72450	Hannan-Quinn criter.		16.54718
F-statistic	54.76834	Durbin-Watson stat		2.342109
Prob(F-statistic)	0.000313			

Source: Own calculations made with the help of Eviews programme

The type tests **Causality-Grangerwhy** (CG) indicate what variables are useful for forecasting other variables. More precisely, we may say that X causes -Granger Y if the forecasting of Y is made considering information about X history which is better than one that ignores the X history. We may check if X (the independent variable, which is the fiscal pressure) causes-Granger Y (the dependent variable given by the unemployment, inflation, economic growth, and public dept) testing if the parameters are significantly different from zero.

I need to underline that despite the name, CG cannot be interpreted as the real causality (structural). CG is consistent with (without being either necessary or sufficient for) the authentic causality, in that the effect has to follow the cause in time. More importantly, CG is extremely useful when answering question such as: "What variables can signal anticipatorily a rise in the X variable?"

According to the test p-value null hypothesis claiming that X does not Granger cause Granger Y is rejected for values lower than 0,05 of the associated probalities. Thus, the null hypothesis alleged default of the associated probabilities is rejected.

Table 5. Testing of Granger causality between the variable

Pairwise Granger Causality Tests			
Sample: 2004 2011			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Probability
ROMANIAN_TOURIST_NR does not Granger Cause MEDIUM SALARY	6	4.69687	0.31018
MEDIUM-SALARY does not Granger Cause ROMANIAN_TOURIST_NR		6.34825	0.27021
ACCOMMODATION_DAYS does not Granger Cause MEDIUM_SALARY	6	6.02817	0.27675
MEDIUM_SALARY does not Granger Cause ACCOMODATION_DAYS		20.9802	0.15257
ACCOMMODATION_DAYS does not Granger Cause ROMANIAN_TOURIST_NR	6	1.55348	0.49345
ROMANIAN_TOURIST_NR does not Granger Cause ACCOMMODATION _DAYS		0.11859	0.89905

Source: Own calculations made with the help of Eviews programme

3. CONCLUSIONS

By using the regression technique and Granger causality in the analysis on the impact of the medium salary in Romania, in the period between 2004-2011, the following were observed:
- the correlation between the number of the accommodation days of the Romanian tourists and the medium salary is directly proportional in the sense that a rise of 1 leu of the salary triggers a modification in the same way of 16.42 in the number of the accommodation days
- the correlation between the number of Romanian tourists and the medium salary is a direct one in the sense that a rise of 1 leu triggers a rise of 5.50 in the number of Romanian tourists.

The modification of the two dependent variables analysed is 90% justified by the modification of the independent variable that is the medium salary. This result indicates the direct relationship, which is strong enough, between the analysed variables.

So, in conclusion, as a result of my analysis I could say that the financial measures taken by the Romanian authorities in the context of global downturn, reflected by the medium salary, affected to a great extent the Black Sea Coast tourism.

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