Bulgarian tourism and the problem of poverty alleviation in Bulgaria

O turismo búlgaro e o problema da redução da pobreza na Bulgária

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Abstract

The present research paper summarizes the results from a broader research on the topic “Bulgarian tourism and the problem of poverty in Bulgaria” commissioned by the German Foundation “Fridrich Ebert”, Sofia Bureau in 2014. Here, a more detailed literature review has been added to the one of the original research with the aim to follow the scientific discussion on this issue in the Bulgarian society for more than a century and to step on the more recent publications existing worldwide. The study examines the question about the ability of Bulgarian tourism to solve the problems with the widespread poverty in Bulgaria in the context of the two main issues such as: (i) the degree of association (in terms of Pearson’s Product-moment coefficients) of the Bulgarian tourism with the economic performance of the EU tourism emitting economies, and whether this association in particular contributes for “transmission of poverty”, and (ii) what will be the estimated volume of the average month salary of the employees on labor contracts in Bulgarian tourism for the next ten years by the Holt-Winters exponential smoothing method. These two sub-questions, these two issues, have been chosen deliberately as the usual excuse of the representatives of the Bulgarian tourism industry for the much weaker results in comparison to the neighboring competing countries is that the tourists who come usually to Bulgaria from Western Europe are poorer. Another reason for the above posed questions is the contentiously repeated in the Bulgarian society “mantra” that the tourism sector in the country will grow on its own without any need of government support and direction and it will lead to a steady increase in the disposable incomes of the employed personnel. Although this claim might have appeared true for the end of the 1990s, the monthly level of salaries in tourism lags significantly behind many other service sectors in Bulgaria.

Keywords: Poverty alleviation, tourism, degree of association, exponential smoothing.

1. Introduction

Since the dawn of the Bulgaria’s transition to a market economy in the early 1990-ies of the 20th century, one of the most often repeated political “slogans” was that tourism, along with agriculture, is one of the sectors which could and should be relied upon for the prosperity of the Bulgarian nation in its transition to a market economy and beyond. Is the Bulgarian tourism really capable to solve the problems of the expending poverty in Bulgaria at the current state, when according to a number of political and economic analysts the transition to a market economy is already completed?

The present research tries to find an answer to this question by answering the two sub-questions: (i) “What is the degree of association of the Bulgarian tourism with the economic
performance of the EU tourism emitting economies, and whether this association in particular contributes for the transmission of poverty?” and (ii) “What will be the estimated volume of the average month salary of the employees on labor contracts in Bulgarian tourism for the next ten years?” These two sub-questions, these two issues, have been chosen deliberately as the usual excuse of the representatives of the Bulgarian tourism industry for the much weaker results in comparison to the neighboring competing countries is that the tourist who come usually to Bulgaria from Western Europe are poorer. Another reason for the above posed questions is the contentiously repeated in the Bulgarian society “mantra” that the tourism sector in the country will grow on its own without any need of government support and direction and it will lead to a steady increase in the disposable incomes of the employed personnel. Although this claim might have appeared true for the end of the 1990s, the level of salaries (on monthly payment basis, which is the practice in the country) lags significantly behind many other service sectors in Bulgaria.

2. Literature and existing surveys review

The first tries for scientific discussion in the Bulgarian society for fighting with poverty and for the potential role of travel and tourism precedes Bulgaria’s liberation from the occupation by the Ottoman Empire in 1878. The first publication in this regard was made by the Bulgarian political statesman P. R. Slaveykov in 1869 in Konstantinopolis in a pamphlet published in the printing house of his own newspaper “Macedonia”, in which he tried to present Benjamin Franklin’s ideas for solving of the problem with poverty. Some more detailed analyses were published in 1892 by E. Dabev and in 1905 by E. Kalachev. In the 1930s, the publications of J. Kovachev (1936) and P. Hadjisotirov (1937), as well as the translated from Russian language paper of D. Hanry (1933) added to the efforts made by the Bulgarian Tourist Union and its Journal to convince the Bulgarian government to see tourism as a tool for overcoming the poverty and for the need of creation of a national tourism administration initially within the framework of the Bulgarian state railway company.

As for the modern research on the economic problem of poverty worldwide, one should inevitably point out the works of Harold W. Watts (1965) on the economic definition of poverty. The economics of poverty in poor countries was further researched by P. Dasgupta (1998). The concrete issue of tourism and poverty reduction was a subject of research by Walter Jamieson, Harold Goodwin and Christopher Edmonds (2004), as well as by Jonathan Mitchell and Caroline Ashley (2010) with a specific aim to understand whether a private sector service activity, like tourism, can reduce poverty in developing countries. The problem of reducing poverty through tourism felt in the focus of investigation by Dain Bolwell and Wolfgang Weinz (2008) from the International Labour Organization. The issue of tourism and poverty reduction felt into the attention of the discussion papers two more agencies of the United Nations, as follows: (i) the United Nations World Tourism Organization (2002); and (ii) the United Nations Development Programme (2011).

With the appearance of the mass tourism after the World War II a significant feature of the Bulgarian tourism industry came into life, i.e. the fact that it has always been one of the most open to the outside world sectors of the Bulgarian economy. And that has been a distinctive feature of the Bulgarian tourism sector even in the years of centrally planned economy and Soviet economic domination. As it is shown by the data provided by Bulgaria’s former Ministry of Economy, Energy and Tourism and by the National Statistical Institute of the Republic of Bulgaria, a considerable part of the tourism consumers have always originated from the West European countries (Figure 1) and from the low-price market segments of these countries in particular.

The openness of the Bulgarian tourism made it especially susceptible to the consumers’ disposable income and thus to the overall economic performance of the West European countries that are now members of the European Union. And as Tribes (2011, p.55), Page (2007, pp.68-69) and Uysal (1988, p.87) point out, whenever the disposable income of the consumers rises up, so does the tourism demand and vice versa. (Particularly at low price, or the so-called “poor” market segments). The exact association of the Bulgarian tourism industry with the economic performance of the EU tourism emitting economies, that are considered as important for the Bulgarian tourism receiving market, has never been measured.
There were some qualitative evaluations in this regard (Rakadzhiiska, Stoyanov & Diankov, 2010) (Stankova, 2010) (Neshkov & Kazandzhieva, 2013, pp.92-99) (Freitag, 2010) but the degree of this association has never been a subject to a detailed calculation. The only precise figures that are being published by the former Bulgarian Ministry of Economy, Energy and Tourism, the newly created Ministry of Tourism and the Bulgarian National Statistical Institute refer to number of tourism arrivals and the percentage share of EU tourists in Bulgaria by country of origin and in total for the European Union (63.2% for 2012, 60.5% for 2013, 60.6% for 2014 and 59.4 for 2015).

Further to this, based on a sample surveys conducted by the former Bulgarian State Tourism Agency (presently the Ministry of Tourism), as well as by the former Ministry of Economy, Energy and Tourism, it can be pointed out that the number of countries from Western Europe and Central and Eastern Europe are of a particular interest as target markets for Bulgaria’s summer sea tourism. According to one of this survey conducted in 2008, the countries that have the biggest shares of tourist coming to Bulgaria for summer sea tourism at the Black sea side are: Germany, United Kingdom, Russia, the Scandinavian countries (mainly from Sweden and Finland), Romania, the Czech Republic and Ukraine.

A brand development expert survey ordered by the Bulgarian Ministry of Economy Energy and Tourism and published in 2013 points out three groups of markets according to their priority for development: (i) markets with a very high priority for development: Germany, Russia, Romania, United Kingdom; (ii) markets with a considerably high priority: Greece, the Czech Republic, Poland, Netherlands, Ukraine; (iii) markets with a medium priority: FYR of Macedonia, Serbia, France, Austria, Israel and Hungary.

All the above research results and ranging of markets (Figure 2) evokes a particular interest on the measuring the Bulgarian tourism industry association with the economic performance of some EU tourism emitting economies, such as Austria, the Czech Republic, Finland, France, Germany, Greece, Romania, Sweden and the United Kingdom. This group of countries does not cover all the countries in Western Europe and in the European Union that are regarded as either main, or priority markets, as it is based also on the availability of data allowing a considerably long times series about their economic performance (by means of the GDP level in 1990’s US dollars in particular).

3. Methodology and main results

3.1 The degree of association of the Bulgarian tourism with the economic performance of some the EU member states

For continuously related variables (Cooper & Emory, 1995, p.478) there is a quite trivial approach for measuring of the degree of association by calculating the so-called Pearson product-moment correlation coefficients. The general mathematical notation of a Pearson product-moment coefficient is as follows (Cooper & Emory, 1995, p.482-483) (Burns & Bush, 2000, p.544):

\[
 r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{ns_x s_y},
\]

(1)

Where:

- \( \bar{x} \) is the mean of the x values;
- \( \bar{y} \) is each y value;
- \( \bar{y} \) is the mean of the Y values;
- \( n \) is the number of paired of cases;
- \( s_x, s_y \) are the standard deviations of x and y, respectively.

The application of the above listed formula (1) is used in regard to the statistical information available of foreign visitors to Bulgaria with recreation and holidays aims and the gross domestic product of the member states of the EU (Figure 3). The statistical information used for the respective calculations is based on the data available from EUROSTAT, from the former Bulgarian Ministry of Economy, Energy and Tourism, from the present Ministry of Tourism, as well as from Bulgaria’s National Statistical Institute. The statistical data in US dollars on 1990 price level for the GDP of Austria, the Czech Republic, Finland, France, Germany, Greece, Romania, Sweden and the United Kingdom,
however, is available only after 1970 and therefore the regarded times series cover the time periods from 1970 to 2012.

Taking into account the results presented in Figure 3, it can be concluded that there is a strong positive linear correlation between the number of foreign visitors to Bulgaria with recreation and holidays aims and the variation in the values of the GDP for the selected EU countries, namely: Austria, the Czech Republic, Finland, France, Germany, Greece, Romania, Sweden and the United Kingdom. The values of the correlation coefficients vary from 0.834 (for the GDP of Germany) to 0.904 (for the GDP of the Czech Republic) (Figure1). This strong positive linear correlation for all the regarded EU countries can be partly explained with the interdependence or cross-association between the economies of these countries, which has also been demonstrated in the strong Pearson correlation coefficient between the GDP values of the separate economies.

Figure 3 - Pearson product-moment correlation coefficients – visual presentation

Conclusions about the degree of association of the Bulgarian tourism with the economic performance of some EU member states, which serve as tourism emitting markets for the Bulgarian tourism:

(i) The result derived from the above presented analysis, which indicates a strong correlation between levels of GDP of the concerned EU-countries and the number of foreign visitors to Bulgaria with recreation and holiday aims;
(ii) This strong association also indicates one of the weaknesses of the Bulgarian tourism industry, and namely that it relies to a great extent on low-income and low-price customers.
(iii) The present study confirms the assumption and hypothetical claims about dependence of the Bulgarian tourism on low income markets that were a subject of discussion in the Bulgarian tourist scientific literature over the past three decades (Hadzhinikolov, 1988), (Rakadzhyska, 1992), (Kostov, 1995), (Vodenska, 2006). And this very same dependence was indicated also as a major problem for Bulgarian tourism industry in reports for the sample surveys of the foreign visitors to Bulgaria, carried out by the former State Tourism Agency, the Former Ministry of Economy, Energy and Tourism and currently the Ministry of Tourism.

3.2 Forecasting the volume of the average monthly salary of the employees on labour contracts in the Bulgarian tourism until June 30, 2014

The available tourism data, published by the National Statistics Institute refer to the average salary of employees on labor contracts in the sub-sector of the hospitality industry, both on an annual and monthly basis (Figure 4).
In present case of available monthly data, it is possible to use
two of the variations of the exponential forecasting methods
and in particular of the Holt-Winters method in the presence of:
(i) "linear trend with multiplicative seasonality" (the "A, M" time
series pattern) and (ii) "linear trend with additive seasonality"
(the "A, A" time series pattern). Here, it is
necessary to clarify that the term "seasonality" in the name of
the forecast patterns (or profiles) is historically determined and
it is used to denote the ordinary seasonal fluctuations, as well
as all other cyclical changes in the development of time series.

The available monthly data since the beginning of the year 2000
allow us to build a relatively long time series of 174 time
periods. The size of the time series on the average monthly
salary of employees in the hospitality industry on labor contract
allows one to seek an appropriate predictive technique and
therefore suitable predictive model to extrapolate this indicator
in the future. A possible solution in this regards could come in
the face of the so-called “univariate” methods of forecasting
(DeLurgio, 1998) and namely and most particularly in the group
of the exponential smoothing methods. This group of methods
relies on the assumption that if a considerably long time series
of a certain indicator can be composed, this very same
considerably long time series will have reflected all the possible
external influences induced by all the possible external factors
and thus time series will have incurred an internal logic of
development and an internal information signal could be
extrapolated further in future.

The mathematical notation of the Holt-Winters method for
multiplicative seasonality is as follows:

1. The smoothing of the level (the base) – “B”:
   \[ B_t = \alpha \frac{Y_t}{S_{t-L}} + (1-\alpha)(B_{t-1} + T_{t-1}) \]
   \[ 0 \leq \alpha \leq 1 \]

2. The smoothing of the trend – “T”:
   \[ T_t = \beta (B_t - B_{t-1}) + (1-\beta)T_{t-1} \]
   \[ 0 \leq \beta \leq 1 \]

3. The smoothing of the seasonal (cyclicity) factor – “S”:
   \[ S_t = \gamma \frac{Y_t}{B_t} + (1-\gamma)S_{t-L} \]
   \[ 0 \leq \gamma \leq 1 \]

4. The calculation of the final forecast “Ft+m” for “t+m” the period ahead of time:
   \[ F_{t+m} = (B_{t-1} + mT_{t-1})S_{t+m-L} \]

Where:
“\(\alpha\)”, “\(\beta\)" and “\(\gamma\)" are the smoothing constants for the base, trend and
seasonality (cyclicity), which can take the value between 0 and 1.

5. The smoothing of the level (the base) – “B”:
   \[ B_t = \alpha (Y_t - S_{t-L}) + (1-\alpha)(B_{t-1} + T_{t-1}) \]
   \[ 0 \leq \alpha \leq 1 \]

6. The smoothing of the trend – “T”:
   \[ T_t = \beta (B_t - B_{t-1}) + (1-\beta)T_{t-1} \]
   \[ 0 \leq \beta \leq 1 \]

7. The smoothing of the seasonal (cyclicity) factor – “S”:
   \[ S_t = \gamma (Y_t - B_t) + (1-\gamma)S_{t-L} \]
   \[ 0 \leq \gamma \leq 1 \]

8. The calculation of the final forecast “Ft+m” for “t+m” the period ahead of time:
   \[ F_{t+m} = B_{t-1} + mT_{t-1} + S_{t+m-L} \]

Where:
“\(\alpha\)”, “\(\beta\)" и “\(\gamma\)" are the smoothing constants for the base, trend and
seasonality (cyclicity), which can take the value between 0 and 1.

9. For the level (base) “B0”:
   \[ B_0 = \frac{1}{L} (Y_1 + Y_2 + ... + Y_L) \]

10. For the trend “T0”:
    \[ T_0 = \frac{1}{L} \left( \frac{Y_{t+1} - Y_1}{L} + \frac{Y_{t+2} - Y_2}{L} + ... + \frac{Y_{t+L} - Y_L}{L} \right) \]
\[ S_0 = \frac{1}{N} \sum_{j=1}^{N} \frac{Y_{L,j-1+i}}{A_j} \quad \forall j = 1, \ldots, L, \]  

(11)

Where:

\[ A_j = \sum_{i=1}^{L} \frac{Y_{L,j-1+i}}{L} \quad \forall j = 1, \ldots, N, \]  

(12)

\[ A_j \] represents the average value of \( Y \) where \( j \) is the concerned time series.

Here, for the initialization of the seasonal factor other alternative methods are also available and R. J. Hyndman (2014) recommends the following approach for the multiplicative seasonality:

\[ S_o = \frac{Y_j}{B_i}, \text{ where } i = 1, \ldots, m. \]  

(13)

However, the present paper will use equation (11) even if it is a little bit more complex to achieve and is close to an autoregressive approach for initialization of the seasonal indices.

Having selected the method of Holt-Winters for multiplicative and additive seasonality as appropriate predictive technique, we can proceed to calculate the corresponding forecasts for a period of ten years or until 30.6.2024 via using the software product "SPSS®" respectively for multiplicative and additive seasonality (Fig. 5 - with options for multiplicative seasonality) and (Fig. 4 - with options for additive seasonality). The comparison of the results of the various options in using the forecast method, or the methods based on errors in the forecasts, was achieved for the purposes of this study by using the mean absolute percentage of error - MAPE. Of course, it is possible to use other measures, as well as simultaneously with MARE, and independently to determine the optimal forecast model. In this case the MAPE values are - 2.051 at the Holt-Winters’ method for additive seasonality and 2.32 at the Holt-Winters’ method by using a multiplicative seasonality.

Conclusions about the possible effect from the forecasted average monthly salary in the tourism sector for the next ten years (until 06/30/2024):

As it is obvious from Fig. 5 and 6, there is a clear and steady trend of a gradual increase in the average monthly salary in the tourism sector and particular in the sub-sectors of the hotels and restaurants. After a careful analysis of this seemingly positive trend, however, one can point out that the forecasts for the end of the forecast period, achieved respectfully by the method of Holt-Winters for multiplicative seasonality and the method of Holt-Winters for additive seasonality are, as follows: 906 BGN (by the method of the Holt-Winters with multiplicative seasonality) and 887 BGN (by the method of Holt-Winters with additive seasonality).

**Figure 5 - Graphical presentation of the forecast results in the method of Holt-Winters for multiplicative seasonality for the period until June 30, 2024**
And if one takes into account the values of MAPE, i.e. that this indicator has its lowest value for the method of Holt-Winters with additive seasonality, it appears that the most optimal forecast of the average monthly salary in the hospitality industry in Bulgaria, up to 06.30.2024, would be 887 BGN. At maximum value recorded for the period 01.01.2000 - 06.30.2014 of 578 BGN (April 2014, equivalent to 295.52 Euros) and final value recorded in this study of 553 BGN (June 2014, equivalent to 282.74 Euros), this means that for the next ten years the average salary in the hotels and restaurants in Bulgaria will increase in comparison to the maximum recorded value only by 309 BGN (157.98 Euros), and in comparison to the last recorded value only by 321 BGN (164.12 Euros)!

Based on the above findings and taking into account of the current market positioning of the Bulgarian tourism industry in regards to the tourist emitting markets of the EU countries, one may draw the conclusion that Bulgarian tourism neither will increase the welfare of the Bulgarian nation, nor it is capable to solve the problems of poverty in the country, and that it rather brings in poverty through the low-price customers coming from the EU member countries.

4. Conclusions

There is a strong association, a strong correlation between levels of GDP of the concerned EU-countries and the number of foreign visitors to Bulgaria with recreation and holiday aims. This strong association also indicates one of the weaknesses of the Bulgarian tourism industry, and namely that it relies to a great extent on low-income and low-price customers.

At maximum value recorded for the period 01.01.2000 - 06.30.2014 of 578 BGN (295.52 Euros, April 2014) and final recorded value of 553 BGN (282.74 Euros, June 2014), for the next ten years the average salary in the sectors of the hotels and restaurants in Bulgaria will increase in comparison to the maximum recorded value only by 309 BGN (157.98 Euros), and in comparison to the last recorded value only by 321 BGN (164.12 Euros)!

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