GEOSPATIAL AND FINANCIAL ANALYSIS OF THE TOURISM SECTOR IN ROMANIA

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Abstract
The tourism sector is one of the fastest developing economic sectors in Romania with a contribution of 6.3% of the total workplaces and a 5.3% direct contribution towards the GDP. However, studies comparing financial results from the companies operating within the tourism sector with general macroeconomic information are very few. In this context the proposed article aims to perform a geospatial and financial analysis of the tourism sector in Romania. The general hypothesis of the study considers that in order to increase the chances of being successful a tourism company should be located in a clustered tourism area. In order to provide a clear view for the impact of the tourism sector in Romania the study will analyze macroeconomic information and will aggregate it with financial information reported by companies operating within the sector. The macroeconomic information is provided by reports of Romanian National Institute of Statistics, Ministry of Tourism and the European Commission's Virtual Tourism Observatory. The main source of the financial information are the financial reporting data of 879 companies involved in the field of tourism for the years 2014-2018. These companies were analyzed and clustered based on different criteria: type of activity, location, number of employees, annual turnover, assets, net profit, Return on Equity, Return on investment, solvency and debt analysis using the spatial aggregation function and the Multi-Distance Spatial Cluster Analysis tool in ArcGis using for calculus a Ripley's k-function. Later the financial information was concatenated with macroeconomic information comprising geographical and cadaster attributes provided by National Institute of Statistics. Also, the paper will use analytical tools such as GIS and financial analysis-based techniques (ROE, ROA, Bankruptcy analysis). These tools will be employed in order to test if companies located in tourism clusters perform and develop better than companies which are not located within clusters.
Keywords Spatial analysis, Spatial Cluster Analysis, Tourism ROA, ROE, GIS

INTRODUCTION

The tourism worldwide is considered one of the fastest development sector in the world and has seen incredible growth in the last few decades since the increasing globalization, communication and transportation opportunities around the world (Taizeng, R, Muhlis C, Sudharshan R. P., Jianchun F. and Wanshan W., 2019). In the same time according to a study published by World Travel Tourism Council(2008) its impact over the GDP has been increasing, as well, and in most countries tourism has been the main tool which supported achieving sustainable economic growth.

The studies of Taizeng, R, Muhlis C, Sudharshan R. P., Jianchun F. and Wanshan W.(2019), Dwyer, L.; Forsyth, P.; Spurr, R. (2004), Lim, C. (1997) or Song, H.; Dwyer, L.; Li, G.; Cao, Z. (2012) highlight the tourism role in generating income, poverty

alleviation, increasing employment prospects, creating additional market for the local products and services and sometime even creating export opportunities for these products and services. Their studies claim that for several countries' tourism has an essential role in the economic growth of larger regions other than the tourism destination itself. Also, the tourism seems to become the main driving force in the development of new local products and services and in development of private companies operating in the sector.

However very few studies tried to analyze if exists a clear correlation between the development of tourism sector and the development of companies operating in the field. Extremely few studies were realized by comparing financial results from the companies operating within the tourism sector with the general macroeconomic information.

In this context the current article is aiming to perform a geospatial and financial analysis of the tourism sector in Romania. In order to provide a clear view of the impact of the tourism sector in Romania over the Romanian economy the study using will analyze macroeconomic information and will aggregate it with financial information. Also, a spatial aggregation function will be used since, in many quantitative studies, of distributional analysis in socio-economy, the information can be presented as a homogeneous phenomenon or entities over a surface because it is easy to be generalized (Gillan and Gonzalez, 2020 Kopczewska et all, 2019, Dixon, 2006). Finally, for the generation of the GIS thematic maps and establishing tourism clusters will be used the Ripley's K function as described by Dixon (2006), Ripley (1979) and Ripley (1981).

The macroeconomic information was collected from reports of Romanian National Institute of Statistics, Ministry of Tourism and the European Commission's Virtual Tourism Observatory. The main source of the financial information used within the study was the financial reporting data of 879 companies involved in the field of tourism for the years 2014-2018.

These companies will be analyzed and clustered based on different criteria: type of activity, location, number of employees, annual turnover, assets, net profit, Return on Equity, Return on investment, solvency and debt analysis using the spatial aggregation function and the Multi-Distance Spatial Cluster Analysis tool in ArcGis using for calculus a Ripley's k-function. Later the financial information will be concatenated with macroeconomic information comprising geographical and cadaster attributes provided by National Institute of Statistics.

Within the paper will be used analytical tools such as Geographic Information System (GIS) and financial analysis-based techniques. These tools will be employed in order to test if companies located in tourism clusters perform and develop better than companies which are not located within clusters.

1. LITERATURE REVIEW

As mentioned above the tourism sector, is considered by World Travel Tourism Council (2008) as an important tool which supported achieving sustainable economic growth in most countries. But the development of tourism is not distributed equally among the

regions of a country and therefore the location of a tourism structure seems to be of a great importance.

An interesting view over development of tourism and clustering of the sector was given by Aznar Alarcón and Sayeras Maspera (2015) which considered that the location of the hotel is an extremely important factor into its profitability. Aznar Alarcon et all (2015) cited another study highly relevant to the field which was realized by Chung and Kalnins (2001) which studied the agglomeration effect on US hotels and established that the agglomeration effect is much higher on smaller privately owned hotels and it is not influencing significantly hotels belonging to a large chain. The authors considered the location of the hotel as being a strategic decision, especially for small hotels. Yang et al.(2014) and Peiro-Signes et al.(2014) insisted on the importance of clusters and they analyzed the benefit of being in an area with high hotel concentration and many suppliers comparing it with the star category of the hotels.

Taking into consideration that the tourism sector is mainly operated by private entities, in order to analyze the level of development, clustering and financial health of the sector, we have to collect and process financial reporting information at the level of each company regarding: value of assets, number of employees, value of revenues, debt analysis and especially financial indicators such Return on Assets (ROA), Return on Equity (ROE) and Bankruptcy analysis(Droj et al, 2017). These indicators can provide valuable information regarding the current diagnostics of the tourism sector and also can indicate if the companies which are located in regional clusters are healthier than other companies.

Several studies tried to establish which indicators are suitable for establishing if a company is healthy or not:

- Magoutas et all (2016) created an integrated econometric model based on market share, years of operation, leverage, capitalization, investments, managerial and cost efficiency. This model was based on several other researches such as: Majumdar (1997), Geroski et all (1997) and Sandvik et al.(2014)
- On the other hand, authors such as Tze-Wei Fu et al. (2002), considered that the profitability of a company is strongly influenced by the capital growth and debt financing.
- Aissa and Goaied(2016) and Marco-Lajara et al.(2016) considered that the performance of a company is influenced by the level of managerial efficiency and financial structure
- Claver-Cortés et al.(2008) analyzed and demonstrated that the usage of Total Quality Management had a positive influence over the economic performance of the hotels.
- Alvarez Gil et al.(2001), Pereira-Moliner et al. (2012), Tari et al. (2010), Wang et al. (2012) introduced in the equation environmental practices along with quality management, size, affiliation to a chain, quality of services, age of facilities.

In order to increase the efficiency in analyzing the clustering of tourism and its effects over the financial results of the companies is extremely important to concatenate the financial information with macroeconomic information comprising geographical and cadaster attributes.

The GIS is increasingly used in order to enhance the tourism management, location management and tourism development (Cimbaljevic at al, 2019, Davidović et al, 2010; McAdam, 1999 and Farsari and Pratacos, 2004). Several studies have been performed using GIS tools for analyzing the tourist movement patterns (Lau McKercher, 2006), travel costs (Han et al, 2013), segmentation of visitors (Luberichs and Wachowiak, 2010). Other studies, such as Jansen-Verbeke and Spee (1995) analyzed the regional tourism movement, flow and distribution.

A clustering research focused on the ecotourism was performed by Dickey and Higham (2005), while Cimbaljevic at al, 2019 analyzed several studies performed by Li and Yang(2017) and Yang and Wong(2012, 2013) which were focused on spatial distribution of resident and non-resident tourists in China. The study is extremely relevant since it demonstrates that is significant spatial inequality in the distribution of international tourism. Spatial inequality of tourism and clustering was analyzed using GIS by Goh et al(2014) which showed, as well, a misbalance in the spatial distribution of tourism. In some regions domestic tourism contributed significantly more to balance the regional economic development than international tourism which was focused on highly clustered regions. The spatial inequality in the tourism industry is extremely high and has been demonstrated in several countries by studies of Chhetri et al (2013); Kang et al(2014); Klepers and Rozite(2009); Xing-zhu and Qun(2014).

2. METHODOLOGY AND EMPIRICAL IMPLEMENTATION

In many quantitative studies' distributional analysis in socio-economy is presented as a homogeneous phenomenon or as entities over a surface because it easy to be generalized (Gillan and Gonzalez, 2020, Kopczewska et all, 2019, Dixon, 2006). These types of studies are disregarding the spatial heterogeneity of the geographic reality. Usually, in the socio-economic analysis we consider that the phenomenon or the entities are homogenic over an administrative territory. For example, the concentration of economic activities in an administrative territory is computed as the total of all the activities performed by the firms within the region.

$$T\ ind\ (\ region) = \sum_{i=1}^{n} ind_{\ i}$$

Where N represents the number of entities in the region, *ind* can be any economic or financial indicator.

This indicator can be calculated in GIS with spatial aggregation function. Aggregation is a function which encapsulates multiple objects into a single object, based on their location. As in any kind of generalization, aggregation eliminates the details of initial data (Gillan and Gonzalez, 2020, Kopczewska et all, 2019). In this paper the aggregation method was deployed in order to concatenate the financial information with macroeconomic information comprising geographical and cadaster attributes.

The financial indicators which will be used in the next chapter in order to test the effects of clustering over the efficiency of a company's activity and its financial results (Droj et al, 2017) will be the following:

- *Return on Equity* – measures the company's ability to make profit from the usage of its own capital. This rate should register values above the average bank interest rate in order for a business/a company to be considered profitable.

$$\text{ROE}=\frac{Net\ income(After\ tax)}{Shareholder\quad Equity}\times 100$$

- *Return on Assets* - is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings.

$$\text{ROA}=\frac{Net\ income(Aftertax)}{Total\ Assets}\times 100$$

Another way of analysing socio-economic point type data is to establish a pattern for spatial distribution of the phenomenon or entities and the distance between elements. The agglomeration of points measures the density or distribution of the entities in space. Spatial distribution of point data can be determined through clustering based on geometrical methods, like Voronoi diagrams (Nearest Neighbour) or statistical methods like empirical distribution - K function. The theoretical $\boldsymbol{K(\ t\ )}$**Function** is defined as:

$$\boldsymbol{K(t) = \lambda^{-1} * E}$$

Where,
E represents the number of objects in a buffer region or in a time interval
λ numbers of entities per unit
K (t) describes characteristics of the objects at a range of scale t

The simplest and most common application of K function is the empirical distribution, also known as complete spatial randomness - CSR (Dixon 2006). In this case the k function is defined like: $\boldsymbol{K(r) = \pi * r^2}$

Where each point (x_i, y_i) represent the location of a point type entity (touristic company) and it's representation is appointed to a circle, with the radius equal the financial indicator, ind_i , of the company.

In case of empirical distribution, the value for a region (A) is calculated as the sum of all companies:

$$\boldsymbol{\sum_{i=1}^{n} K_i(r_i) = \sum_{i=1}^{n} \pi * r_i^2 = A}$$

Where K_i is an indicator of i company is the area of i^{th} circle and r_i in the value of the chosen indicator in company i

The empirical distribution presented before can be improved by Ripley's K function, in order to notice the concentration of the spatial distribution of an entity or phenomenon (e.g. the economic activity). The Ripley's K function is a spatial analysis method used to describe how point patterns occur over a given area of interest and to determine if the phenomenon of interest (e.g. firms) appears to be dispersed, clustered, or randomly distributed throughout the study area (Dixon 2006). The representation of Ripley's K function is scale dependent: at near distances, the points are represented as a cluster, while at farther distances, points seems dispersed.

Ripley's K function can be calculated in a univariate form where it's described the spatial pattern for points or in a bivariate form where it's analysed the spatial pattern between two different classes of points. In literature there are multiple variations of Ripley's K function (Arbia et all, 2008, Gillan and Gonzalez, 2020 Kopczewska et all, 2019, Dixon, 2006). *The Ripley's K*-functions have been already used in economic geography to characterize the geographical concentration of industries (Arbia et all, 2008, Gillan and Gonzalez, 2020 Kopczewska et all, 2019).

In this paper we analyzed the distribution of tourist companies as a map of points in the space and we illustrate their geographical distribution through Multi-Distance Spatial Cluster Analysis(Mitchell, 2005), a spatial statistical nonparametric tool known as the *K*-function (Ripley 1977).

Multi-Distance Spatial Cluster Analysis tool in ArcGis, uses for calculus a Ripley's k-function, the expected result with a random set of points is equal to the input distance (Mitchell, 2005).

$$L(d) = \sqrt{\frac{A\sum_{i=1}^{N}\sum_{j=1,j\neq i}^{N} k(i,j)}{\pi N(N-1)}}$$

where A is area, N is the number of points, d is the distance and k(i, j) is the weight, which (if there is no boundary correction) is 1 when the distance between i and j is less than or equal to d and 0 when the distance between i and j is greater than d. When edge correction is applied, the weight of k(i, j) is modified slightly (Mitchell, 2005).

3. APPLICATION OF METHODOLOGY AND EMPIRICAL RESULTS

3.1. A general view of tourism in Romania

In case of Romania, the tourism sector, along with the IT sector, is one of the fastest developing economic sectors with a contribution of 6.3% of the total workplaces and a 5.3% direct contribution towards the GDP. Also, tourism seems to become the main driving force in the development of new local products and services. According to the data provided by the National Institute of Statistics(2019) the number of tourism establishments have been increasing yearly in an exponential level from 6.946 establishments in 2016 to 8.453 establishments in 2018. Over this period, as can be observed the biggest increase has been realized in the Hotel category with an increase of 85 units, bungalows with 245 units, tourist boarding houses with 179 units, but mostly agro-tourist boarding houses with a staggering increase of 793 units.

Figure 1: **Evolution of number of tourism establishments in Romania 2016-2018**

	2016	**2017**	**2018**
Number of establishments			
TOTAL	**6946**	**7905**	**8453**
Hotels	1551	1597	1636
Motels	218	222	231
Tourist inns	3	3	4
Hostels	266	300	319
Tourist villas	635	659	695
Bungalows	288	434	533
Tourist chalets	194	225	231
Holiday villages	7	9	10
Camping sites	61	57	58
School and pre-school camps	58	57	59
Tourist halting places	38	40	47
Tourist boarding houses	1530	1666	1709
Agro-tourist boarding houses	2028	2556	2821
Houselet-type units	59	70	73
Ship accommodation places	10	10	27

Source: National Institute of Statistics – Turismul Romaniei - Breviar Statistic 2019
http://www.insse.ro/cms/ro/content/turismul-rom%C3%A2niei-breviar-statistic-2

The positive evolution in number of tourism establishments has been followed closely by the increase of the accommodation capacity (number of beds) which witnessed an increase from 328.888 beds in 2016 to 353.835 beds in 2018, an total increase with 24.497 beds. The biggest growth was again met in agro-tourist boarding houses with 11.180 beds, hotels with 7.235 beds and tourist boarding houses with 3.221 beds.

Figure 2: **Evolution of accommodation capacity in Romania 2016-2018**

	2016	**2017**	**2018**
Existing accommodation capacity (number of beds)			
TOTAL	**328888**	**343720**	**353835**
Hotels	189999	194884	197234
Motels	8408	8902	8886
Tourist inns	63	63	101
Hostels	12845	14211	14247
Tourist villas	14213	15255	16555
Bungalows	2755	3554	3734
Tourist chalets	6097	6503	6384
Holiday villages	479	539	493
Camping sites	12428	8784	8923
School and pre-school camps	6702	6436	6704
Tourist halting places	1894	1919	2517

	2016	2017	2018
Existing accommodation capacity (number of beds)			
Tourist boarding houses	32602	34816	35823
Agro-tourist boarding houses	37394	44499	48574
Houselet-type units	2502	2848	2782
Ship accommodation places	507	507	878

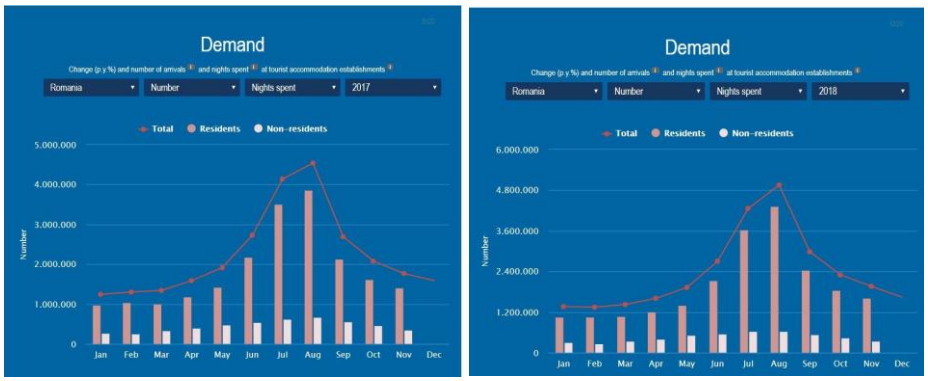
Source: National Institute of Statistics – Turismul Romaniei - Breviar Statistic 2019
http://www.insse.ro/cms/ro/content/turismul-rom%C3%A2niei-breviar-statistic-2

The same rise in tourism accommodations can be observed also in the graphics realized using the statistics analysis instrument provided by the website of European Commission's Virtual Tourism Observatory(2020) https://ec.europa.eu/growth/tools-databases/vto/ both analyzing the arrivals and nights spent by both residents and non-residents.

Figure 3: **Evolution of arrivals in Romania 2017-2018**

Source: European Commission's Virtual Tourism Observatory(2020)
https://ec.europa.eu/growth/tools-databases/vto/

Figure 4: **Evolution of nights spent in Romania 2017-2018**



Source: European Commission's Virtual Tourism Observatory(2020)
https://ec.europa.eu/growth/tools-databases/vto/

3.2. Research hypothesis

Studies comparing financial results from the companies within tourism sector with macroeconomic information are very few and in the same time these studies never considered the analysis of the clustering effects. The general hypothesis considers *that in order to increase the chances of being successful a tourism company should be located in a clustered tourism area*.

The specific hypothesis which will be tested within the paper are:

- H1. The inequality of tourism in Romania is high, since most of the companies operating in the tourism industry are located in clusters
- H2. Most of the assets and employees of the companies which are involved in tourism in Romania are located in clustered regions
- H3. The companies located in a tourism cluster have much better financial results compared with companies which are not located in a cluster even if they are from the same county or region
- H4 The companies located in a tourism cluster have much better survival opportunities compared with those which are not located in a cluster even if they are from the same county or region

3.3. Application of methodology and empirical results

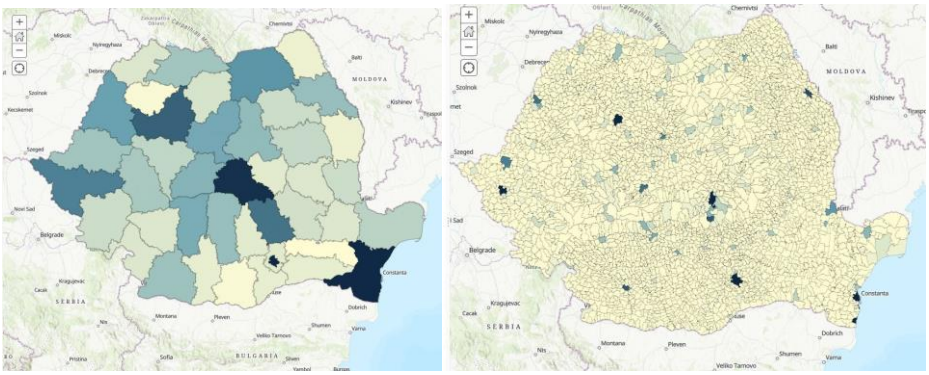
In this context the proposed article is aiming to perform a geospatial and financial analysis of the tourism sector in Romania. In order to provide a clear view of the impact of the tourism sector in Romania over the Romanian economy the study will analyze macroeconomic information and will aggregate it with financial information. The macroeconomic information is provided by reports of Romanian National Institute of Statistics, Ministry of Tourism and the European Commission's Virtual Tourism Observatory.

The main source of the financial information is provided by the financial reporting data for the years 2014-2018 of 879 companies involved in the field of tourism. These companies were analyzed and clustered based on different criteria: type of activity, location, number of employees, annual turnover, assets, net profit, Return on Equity, Return on investment, solvency, debt analysis, so on. Later the financial information will be concatenated with macroeconomic information comprising geographical and cadaster attributes provided by National Institute of Statistics. Also, the paper will use analytical tools based on GIS and financial analysis techniques. These tools will be employed in order to analyze both territorial statistics such as number of tourist companies, purchasing power, employment in tourism, assets and also financial reporting statistics such as Assets, revenues, profits, financial indicators such as ROE, ROA.

3.3.1. Testing the hypothesis: H1.
The inequality of tourism in Romania is high since most of the companies operating in the tourism industry are located in clusters. In order to test this hypothesis, the authors projected the financial results database over the administrative maps in order to establish the geographic position of each of the 879 companies involved in tourism and to analyse their spread across Romania. We can observe from the bellow generated GIS maps that

this hypothesis is confirmed since the development of tourism is not uniform at national level, clear inequalities being observed between Romanian counties. The situation is even more pronounced when analysed at the level of each municipality where it can be observed a clear grouping of tourist companies in extremely few locations across the country: 8 big cities where tourists can experience cultural, educational, health or business tourism (Bucharest, Cluj Napoca, Oradea, Brasov, Constanta, Timisoara, Arad and Iasi) and four clusters of national tourist resorts (one thermal water cluster, two mountain resorts clusters and one seaside cluster).

Figure 5: **Distribution of tourism companies across Romania**

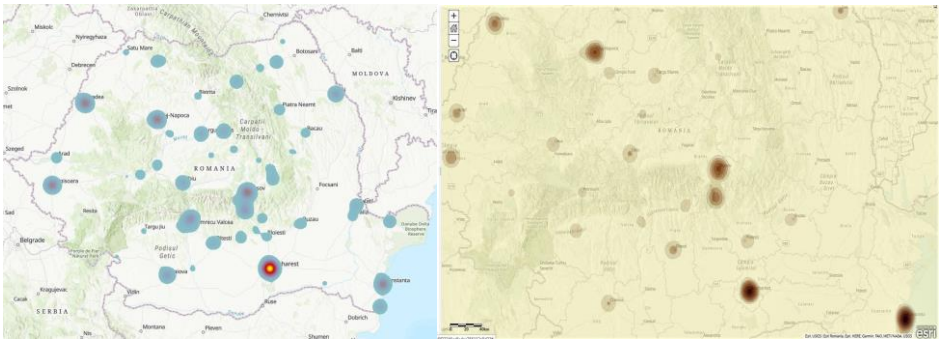


Source: Thematic maps created by authors using Arcgis Online

3.3.2. Testing the hypothesis: H2.

Most of the assets and employees of the companies which are involved in tourism in Romania are located in clustered regions. This hypothesis was tested by applying the Multi-Distance Spatial Cluster Analysis tool in ArcGis using for calculus a Ripley's k-function over the information reported by the 879 tourism companies regarding their assets and number of employees. As can be observed the spread of employees and assets are clearly distributed in several clusters across the country so this hypothesis can be considered tested as well. Their distribution exemplifies even more both hypothesis H1 and H2.

Figure 6: **Clustering of employees and assets of tourism companies across Romania**



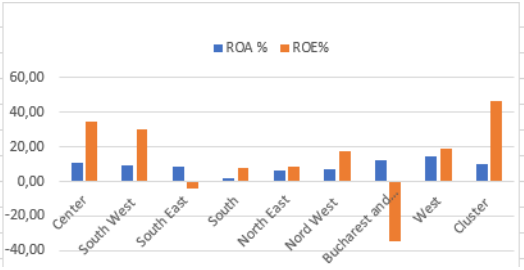
Source: Thematic maps created by authors using Arcgis Online

3.3.3. Testing the hypothesis:H3.

The companies located in a tourism cluster have much better financial results compared with companies which are not located in a cluster even if they are from the same county or region. In order to test this hypothesis, the authors used the aggregated function presented above and determined the average mean of ROA and ROE in each region. As can be observed the ROA registers values starting from 1.81% in Southern Romanian Region to 21.79% in the Western Romanian Region, while on the analysis of the ROE an interesting situation can be seen in the regions of South East and Bucharest-Ilfov where the average mean is negative, while the highest ROE is registered in the Center and South-Western Region. The cluster which was tested was the mountain tourism cluster Valea Prahovei. As can be observed the companies located in the cluster have much better financial results than companies from the same counties/region which are not located in the county. The ROE of the companies located in the Valea Prahovei tourism cluster is 46.78% which is amazingly high comparing with results of companies operating in other regions and also comparing with the expected results of other companies operating in the national and international economy.

Figure 7: **Analysis of the financial indicators between cluster and non-cluster companies**

Region	ROA %	ROE%
Center	10,57	34,30
South West	9,30	30,10
South East	8,62	-4,03
South	1,81	7,70
North East	6,50	8,31
Nord West	6,99	17,70
Bucharest and Ilfov	12,58	-34,58
West	14,63	19,33
Cluster	10,38	46,78



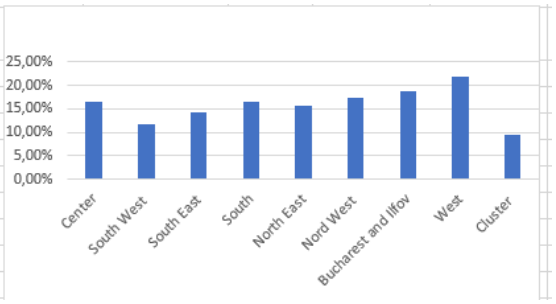
Source: Calculation of the authors based on the data provided by Romanian Ministry of Finance and EMIS.

3.3.4. Testing the hypothesis:H4.

The companies located in a tourism cluster have much better survival opportunities then those which are not located in a cluster even if they are from the same county or region. Since many authors argue if the clustering has or does not a significant effect regarding the chances of survival for tourism companies, we analysed the health indicators of the tested companies (debt and bankruptcy analysis). As can be seen from the below table the percentage of companies located in a cluster which encounter bankruptcy risk is much lower compared with the regional values. In this case the companies can benefit of being in an area with high hotel concentration, many suppliers, trained employees and know how.

Figure 8: **Analysis of the bankruptcy risk between cluster and non-cluster companies**

Region	Companies in difficulties
Center	16,43%
South West	11,82%
South East	14,29%
South	16,44%
North East	15,58%
Nord West	17,31%
Bucharest and Ilfov	18,63%
West	21,79%
Cluster	9,52%



3.3.5. Consideration regarding the General hypothesis.

The general hypothesis considers that in order to increase the chances of being successful a tourism company should be located in a clustered tourism area. After analysing the four-specific hypothesis, we can consider that the general hypothesis was also verified by each individual hypothesis. This is proved also by high level of concentration of tourism activity, number of companies, assets and employees in only 8 big cities and four clusters composed by several national tourist resorts (one thermal water cluster, two mountain resorts clusters and one seaside cluster), clear inequalities being observed between Romanian counties. In the same time a company which is located in a big city or a cluster has better chances to reach higher financial results and has lower risk of bankruptcy.

CONCLUSION

The tourism has an important role in generating income, poverty alleviation, increasing employment prospects, creating additional market for the local products and services and sometime even creating export opportunities for these products and services. In this context the current article proposed to perform a geospatial and financial analysis of the tourism sector in Romania and its impact on the economy. In order to provide a clear view of the impact of the tourism sector in Romania over the Romanian economy the study used a spatial aggregation function of the macroeconomic and financial information.

In case of Romania, the tourism sector, along with the IT sector, is one of the fastest developing economic sectors with a contribution of 6.3% of the total workplaces and a 5.3% direct contribution towards the GDP. Tourism seems to become the main driving force in the development of new local products and services. According to the data provided by the National Institute of Statistics, number of tourists and number of tourism establishments have been increasing yearly in an exponential level. As observed from the above-mentioned analysis the spatial distribution of tourism is very rarely uniform and regular. The agglomeration of companies inside a region is suggesting a growth in the economic development, in this case in tourism. The tourism activities are highly influenced by location, maybe even more than other activities. In order to increase the chances of success for a tourism company, it should be located in a clustered tourism

area or in big city where tourists can experience cultural, educational, health or business tourism.

The general hypothesis considers that in order to increase the chances of being successful a tourism company should be located in a clustered tourism area. After analysing the four-specific hypothesis, we can accept that the general hypothesis was also verified by each individual hypothesis. This is proved, also, by the high level of concentration of tourism activities, number of companies, assets and employees in only 8 big cities and four clusters of national tourist resorts (one thermal water cluster, two mountain resorts clusters and one seaside cluster), clear inequalities being observed between Romanian counties. In the same time a company which is located in one of the 8 big cities or within the cluster has better chances to reach higher financial results and has lower risk of bankruptcy.

This study should be continued and developed further analysing other significant elements regarding tourism:

- Tourism distribution of the residents and non-residents and their preference regarding different locations
- Influence of the purchasing power of the local population and businesses over the development of tourism in a certain region
- Some of the clusters are transregional and therefore it should be analysed how are influenced by the policies at the national and regional level and if these policies should be transformed in tourism strategies at the cluster level.

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