

DYNAMIC ANALYSIS OF CULTURAL TOURISM DEMAND IN SUCEAVA COUNTY DURING THE PERIOD 2013-2022

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Abstract

Analyzing the absolute and relative dynamics of arrivals during the period 2013-2022, in the Municipality of Suceava, it was observed that the number of arrivals increased significantly in 2022 compared to 2013, by 62.96%. For the Municipality of Câmpulung Moldovenesc, the absolute and relative dynamics of arrivals during the same period revealed a very good growth rate, of 121.93% at the end of the analyzed period compared to 2013. Overall, the average level of arrivals in the Municipality of Suceava recorded 91,598.6 persons, with an average absolute increase of 5,186.44 persons and a relative increase of 5.5%, while in the Municipality of Câmpulung Moldovenesc, the average level recorded 16,941.2 persons with an average absolute increase of 1,804.78 persons and a relative increase of 9.2%.

Analyzing the absolute and relative dynamics of overnight stays during the period 2013-2022, in the Municipality of Suceava, it was observed that their number increased in 2022 by 64.67% compared to the base year of 2013. For the Municipality of Câmpulung Moldovenesc, the absolute and relative dynamics of overnight stays during the same period revealed a very good growth rate, of 163.72% at the end of the analyzed period compared to 2013. Overall, the average level in the Municipality of Suceava recorded 141,300.3 overnight stays with an average absolute increase of 8,244.78 overnight stays and a relative increase of 5%, while in the Municipality of Câmpulung Moldovenesc, it recorded 35,377.6 overnight stays with an average absolute increase of 4,504.67 overnight stays and a relative increase of 11%.

The average length of stay for the Municipality of Suceava recorded at the end of the analyzed period (2022) compared to the base year (2013) showed a slight increase of only 0.64%, while in the Municipality of Câmpulung Moldovenesc, there was an increase in the average length of stay at the end of the analyzed period compared to the base year, by 18.81%.

Keywords: arrivals, overnight stays, average length of stay, absolute dynamics, relative dynamics

INTRODUCTION

Suceava County, located in northeastern Romania, is a region with a rich historical and cultural heritage, often underestimated or overlooked compared to other areas. However, this county is essential for understanding the Romanian identity and the history of Moldova.

Suceava city is located in northeastern Romania, situated in Suceava County. It is one of the most important urban centers in the region and serves as the county's seat. Located in the historical region of Bukovina, it is known for its rich cultural heritage, traditional architecture, and spectacular natural landscapes in the surrounding area. Suceava is a significant historical and cultural center, closely associated with the medieval history of Moldova and the reign of Stephen the Great, one of Moldova's most important voivodes.

Câmpulung Moldovenesc city, located in northeastern Romania, is a place rich in

history and enchanting due to its spectacular natural landscapes. With a rich cultural heritage and a picturesque atmosphere, this city is a fascinating destination for both locals and visitors alike. Nestled in the heart of the Carpathian Mountains, Câmpulung Moldovenesc offers a diverse range of outdoor activities, from mountain hiking to skiing and other winter sports.

In addition to its natural beauty, Câmpulung Moldovenesc is remarkable for its cultural and historical heritage. The city preserves numerous historical monuments and old churches, which are testimonies to its rich past. Moreover, the local community proudly maintains its traditions and customs, while cultural events and festivals highlight the diversity and richness of the region.

The higher number of tourist arrivals in the city of Câmpulung Moldovenesc compared to Suceava is due to the fact that it offers more

forms of tourism besides cultural tourism. Being situated in a mountainous area, mountain tourism is especially popular here.

By studying the dynamics of arrivals and overnight stays and analyzing the average length of stay in these two municipalities, one responds to one of the fundamental needs of tourism, namely defining the tourism phenomenon. Tourist circulation, along with tourism potential and infrastructure, is one of the components that contribute to defining the tourism phenomenon and reflects the manner and level of exploitation of the tourism potential of an area. The volume of tourist circulation is not always directly proportional to the value of the tourism heritage because an important role is also played by the stimulation of tourist circulation through the promotion of visited attractions (Simeanu et al., 2022).

MATERIAL AND METHOD

In number of tourists (arrivals) accommodated in touristy boarding units are included all the persons (Romanians and foreigners) who travel outside their own residence locality, for a period less than 12 months and who stay at least one night into a touristy boarding unit in areas which they visit in the country; the main reason of the journey being other than to have a paid activity in the visited (statistici.insse.ro8077/tempo-online/).

Touristy overnight is a 24 hours period, starting with hotel hour, for which a person is recorded in the bookkeeping of touristy unit and it is hosted for the paid price, even if effective sojourn stay is lower than the mentioned period. Are also included the overnights afferent to supplementary installed beds (paid by customers) (statistici.insse.ro8077/tempo-online/).

Mean duration of sojourn is determined by rate between numbers of days/tourist (NTZ) to tourists number (T) and reflects the possibility of touristy offer to retain a tourist into a certain area, region or country (Badita et al, 2005; Merce & Merce, 2009).

$$D_s = \frac{\sum NZT}{\sum NT}$$

where: D_s - mean duration of sojourn;
 NZT - numbers of days/tourist;
 T - tourists number.

Absolute indicators represent a basic form of dynamic series, based on which could be obtained general indicators (Badita et al, 2005; Merce & Merce, 2009; Petcu, 2005).

Level indicators are the terms of a series formed by absolute indicators ($y \dots y_t \dots y_{t-1}$).

Total level of terms ($\sum_{t=1}^n y_t$), only for time interval series with absolute measures.

The absolute modifications: with fixed base $\Delta_{t/1} = y_t - y_1$ where, $t = \overline{2, n}$; with in chain base (mobile or variable base) $\Delta_{t/t-1} = y_t - y_{t-1}$ where, $t = \overline{2, n}$.

Relative indicators

It is a presentation way, mainly percentage. In this situation is mandatory that in title or outside the table to be mentioned the rating based so the data interpretation to be correctly done.

Dynamic index: with fixed base $I_{t/1}(\%) = \frac{y_t}{y_1} \times 100$; with in chain base $I_{t/t-1}(\%) = \frac{y_t}{y_{t-1}} \times 100$.

Dynamic rhythm: with fixed base $R_{t/1} = I_{t/1}(\%) - 100\%$; with in chain base $R_{t/t-1} = I_{t/t-1}(\%) - 100\%$, $t = \overline{2, n}$.

Average indicators: \bar{y} - the average level of the interval time series $\bar{y} = \frac{\sum_{t=1}^n y_t}{n}$, $\bar{\Delta}$ - the average level of the absolute change (increase or decrease) $\bar{\Delta} = \frac{y_n - y_1}{n-1}$, \bar{I} - the average index of dynamics $\bar{I} = \sqrt[n-1]{\frac{y_n}{y_1}}$, \bar{R} - the average growth rate $\bar{R} = \bar{I} - 100$.

To adjust the number of tourists, the method of trends adjusted according to the linear trend, for the time period 2013-2027 was used:

Linear model: $y = a + bt$.

R is the correlation between the values predicted by the equation and the current values. The square R is used to indicate the variation of the values from the trend line (Pantiru, 2006).

RESULTS AND DISCUSSIONS

Using the statistical data provided by the National Institute of Statistics (statistici.insse.ro8077/tempo-online/) regarding the tourist demand in the municipalities of Suceava and Câmpulung Moldovenesc in Suceava County, we can analyze the level and dynamics of the following indicators: total arrivals level; total

overnight stays level, and average length of stay. These indicators will be characterized both dynamically and structurally.

The level and dynamics of arrivals and overnight stays

Analyzing the absolute and relative dynamics of arrivals in the period 2013-2022 (Table 1), it was observed that in the municipality of Suceava, there was a significant increase in 2022 of 62.97% compared to the base year (2013). Compared to the previous year, the highest increase in the number of arrivals was recorded in 2021 by 92.37%, while a significant decrease in the number of arrivals compared to the previous year was recorded in 2020 (pandemic year) by 47.63%. Overall, the

average level of arrivals recorded 91,598.6 persons with an average absolute increase of 5,186.44 persons and a relative increase of 5.5%. In the municipality of Câmpulung Moldovenesc, it was found that the number of tourists arrived considerably increased in 2022 compared to the base year (2013), by 121.94%. Compared to the previous year, the highest increase in the number of tourists arrived was recorded in 2021 by 140.61%. A significant decrease in the number of arrivals compared to the previous year was recorded in 2020 by 50.2% (pandemic year). Overall, the average level of arrivals in the municipality of Câmpulung Moldovenesc recorded 16,941.2 persons with an absolute increase of 1,804.78 persons and a relative increase of 9.2%.

Table 1

Absolute and relative changes in arrivals, in the municipalities of Suceava and Câmpulung Moldovenesc, during the period 2013 - 2022

Suceava Municipality							
Years	Arrivals (number of persons)	Absolute changes		Dynamics index %		The rhythm of dynamics %	
		$\Delta t/1$	$\Delta t/t-1$	$It/1$	$It/t-1$	$Rt/1$	$Rt/t-1$
2013	74129	-	-	-	-	-	-
2014	81489	7360	7360	109.93	109.93	9.93	9.93
2015	91040	16911	9551	122.81	111.72	22.81	11.72
2016	93058	18929	2018	125.54	102.22	25.54	2.22
2017	101412	27283	8354	136.80	108.98	36.80	8.98
2018	103139	29010	1727	139.13	101.70	39.13	1.70
2019	99129	25000	-4010	133.73	96.11	33.73	-3.89
2020	51915	-22214	-47214	70.03	52.37	-29.97	-47.63
2021	99868	25739	47953	134.72	192.37	34.72	92.37
2022	120807	46678	20939	162.97	120.97	62.97	20.97
	\bar{y}	$\bar{\Delta}$		\bar{I}		\bar{R}	
	91598.6	5186.44		1.055 (105.5%)		5.5%	
Câmpulung Moldovenesc Municipality							
Years	Arrivals (number of persons)	Absolute changes		Dynamics index %		The rhythm of dynamics %	
		$\Delta t/1$	$\Delta t/t-1$	$It/1$	$It/t-1$	$Rt/1$	$Rt/t-1$
2013	13321	-	-	-	-	-	-
2014	13235	-86	-86	99.35	99.35	-0.65	-0.65
2015	12933	-388	-302	97.09	97.72	-2.91	-2.28
2016	13437	116	504	100.87	103.90	0.87	3.90
2017	16896	3575	3459	126.84	125.74	26.84	25.74
2018	17498	4177	602	131.36	103.56	31.36	3.56
2019	19482	6161	1984	146.25	111.34	46.25	11.34
2020	9702	-3619	-9780	72.83	49.80	-27.17	-50.20
2021	23344	10023	13642	175.24	240.61	75.24	140.61
2022	29564	16243	6220	221.94	126.65	121.94	26.65
	\bar{y}	$\bar{\Delta}$		\bar{I}		\bar{R}	
	16941.2	1804.77		1.092 (109.2%)		9.20%	

Source: calculation according to insse.ro

To estimate the number of tourists arriving in the next five years, the adjustment

function for the Municipality of Suceava was used: $y = 1948.4x - 4E+06$, and for the

Municipality of Câmpulung Moldovenesc, the adjustment function was: $y = 1455.9x - 3E+06$, obtained through graphical method following the linear trend. The R-squared value was used to

indicate the variation of values from the trend line: for the Municipality of Suceava, $R^2 = 0.2759$, and for the Municipality of Câmpulung Moldovenesc, $R^2 = 0.7753$ (Figure 1).

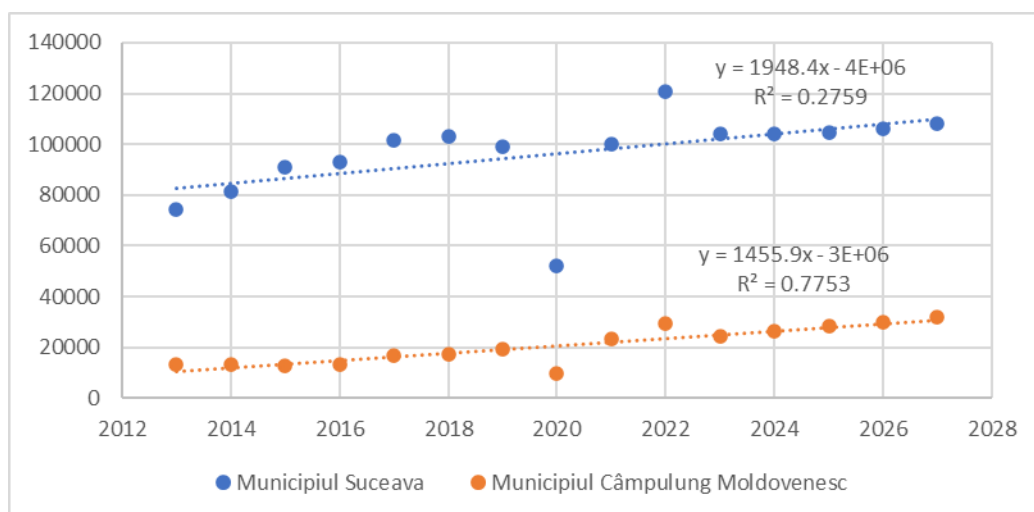


Figure 1. The dynamics and estimation of arrivals, for the period 2013-2027, in the municipalities of Suceava and Câmpulung Moldovenesc

Given that the influencing factors in tourism activity will maintain the same pace over the next five years as in the analyzed period (2013-2022) (Table 2), in 2027, the number of tourists arrived in the

Municipality of Suceava could be approximately 108 thousand, while in the Municipality of Câmpulung Moldovenesc, it could be around 32 thousand.

Table 2
Estimating arrivals, for the period 2023-2027, in the Municipalities of Suceava and Câmpulung Moldovenesc

Years	T(x)	Arrivals (number of persons)	
		Suceava Municipality $Y=1948.4x-4E+06$	Câmpulung Moldovenesc Municipality $Y=1455.9x-3E+06$
2023	11	104034.3	24258.93
2024	12	104350	26220.64
2025	13	104760.9	28214.9
2026	14	106359.2	30060.62
2027	15	108220.1	31760.24

Analyzing the absolute and relative dynamics of overnight stays during the period 2013-2022 (Table 3), in the Municipality of Suceava, a significant increase was recorded in 2022 by 64.67% compared to the base year (2013). Compared to the previous year, the highest increase in the number of overnight stays was recorded in 2021 by 89.26%, while a significant decrease in the number of overnight stays compared to the previous year was recorded in 2020 (pandemic year) by 51.07%. Overall, the average level of overnight stays recorded 141,300.3 stays with an average

absolute increase of 8,244.78 stays and a relative increase of 5%.

In the Municipality of Câmpulung Moldovenesc, it was found that the number of overnight stays increased considerably at the end of the analyzed period compared to the base year, by 163.72%. Compared to the previous year, the highest increase in the number of overnight stays was recorded in 2021 by 151.18%, but a significant decrease in the number of overnight stays compared to the previous year was recorded in 2020 by 57.25% (pandemic year). Overall, the average level of

overnight stays in the Municipality of Câmpulung Moldovenesc recorded 35,377.6 stays, with an average absolute increase of 4,504.67 stays and a relative increase of 11%.

Table 3

Absolute and relative changes in overnight stays, in the municipalities of Suceava and Câmpulung Moldovenesc, during the period 2013 - 2022

Suceava Municipality							
Years	Overnight stays (number)	Absolute changes		Dynamics index %		The rhythm of dynamics %	
		$\Delta t/1$	$\Delta t/t-1$	$It/1$	$It/t-1$	$Rt/1$	$Rt/t-1$
2013	114741						
2014	123692	8951	8951	107.80	107.80	7.80	7.80
2015	170217	55476	46525	148.35	137.61	48.35	37.61
2016	140053	25312	-30164	122.06	82.28	22.06	-17.72
2017	151081	36340	11028	131.67	107.87	31.67	7.87
2018	149456	34715	-1625	130.26	98.92	30.26	-1.08
2019	155174	40433	5718	135.24	103.83	35.24	3.83
2020	75934	-38807	-79240	66.18	48.93	-33.82	-51.07
2021	143711	28970	67777	125.25	189.26	25.25	89.26
2022	188944	74203	45233	164.67	131.47	64.67	31.47
	\bar{y}	$\bar{\Delta}$		\bar{I}		\bar{R}	
	141300.3	8244.78		1.05 (105%)		5%	
Câmpulung Moldovenesc Municipality							
Years	Overnight stays (number)	Absolute changes		Dynamics index %		The rhythm of dynamics %	
		$\Delta t/1$	$\Delta t/t-1$	$It/1$	$It/t-1$	$Rt/1$	$Rt/t-1$
2013	24763						
2014	22804	-1959	-1959	92.09	92.09	-7.91	-7.91
2015	26314	1551	3510	106.26	115.39	6.26	15.39
2016	26075	1312	-239	105.30	99.09	5.30	-0.91
2017	34965	10202	8890	141.20	134.09	41.20	34.09
2018	37068	12305	2103	149.69	106.01	49.69	6.01
2019	46566	21803	9498	188.05	125.62	88.05	25.62
2020	19909	-4854	-26657	80.40	42.75	-19.60	-57.25
2021	50007	25244	30098	201.94	251.18	101.94	151.18
2022	65305	40542	15298	263.72	130.59	163.72	30.59
	\bar{y}	$\bar{\Delta}$		\bar{I}		\bar{R}	
	35377.6	4504.66		1.11 (111.0%)		11%	

Source: calculation according to insse.ro

To estimate the number of overnight stays in the next five years, the adjustment function for the Municipality of Suceava was used: $y = 1801x - 3E+06$, and for the Municipality of Câmpulung Moldovenesc, the adjustment function was: $y =$

$1609.1x - 3E+06$, obtained through graphical method following the linear trend. The R-squared value was used to indicate the variation of values from the trend line: for the Municipality of Suceava, $R^2 = 0.0977$, and for the Municipality of Câmpulung Moldovenesc, $R^2 = 0.3527$ (Figure 2).

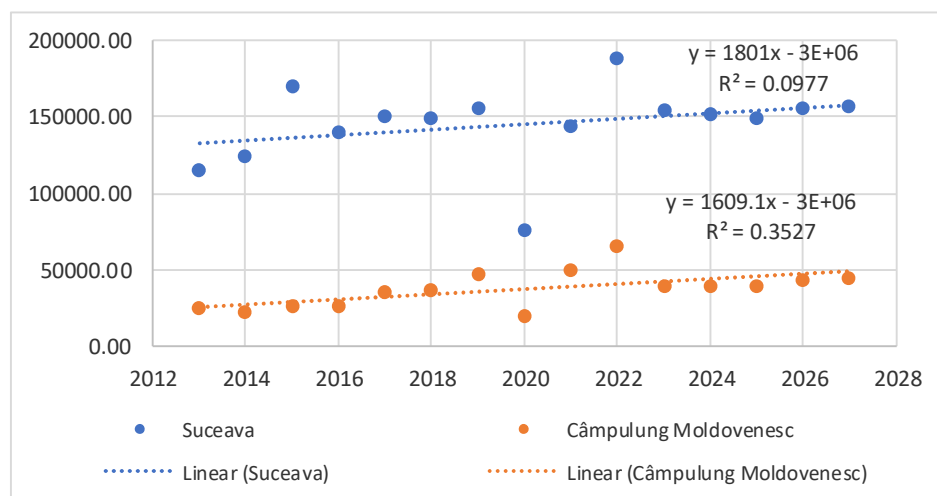


Figure 2. **The dynamics and estimation of overnight stays, for the period 2013-2027, in the municipalities of Suceava and Câmpulung Moldovenesc**

Given that the influencing factors in tourism activity will maintain the same pace over the next five years as in the analyzed period (2013-2022) (Table 4), in 2027, the number of overnight stays in the Municipality of Suceava is

estimated to be approximately 157 thousand, while in the Municipality of Câmpulung Moldovenesc, it is estimated to be around 73 thousand.

Table 4

Estimating overnight stays for the period 2023-2027 in the Municipality of Suceava and the Municipality of Câmpulung Moldovenesc

Years	T(x)	Overnight stays (number)	
		Suceava Municipality $Y=1801x-3E+06$	Câmpulung Moldovenesc Municipality $Y=1609.1-3E+06$
2023	11	153976.4	54939.27
2024	12	151964.4	59933.37
2025	13	148918.7	64390.97
2026	14	155176.7	69092.32
2027	15	157314	73072

The average length of stay, as an indicator showing the average time (days) tourists stay in accommodation facilities and thus reflecting the possibility of retaining tourists in a certain area or region (Turcu & Weisz, 2008), for the Municipality of Suceava, during the analyzed period (2013-2022), varied between 1.44 days (in 2021) and 1.87 days (in 2015). At the end of the analyzed period, an

increase in the average length of stay was observed, by only 0.64% compared to the base year. In the Municipality of Câmpulung Moldovenesc, the average length of stay varied between 1.72 days (in 2014) and 2.39 days (in 2019) (Table 5). At the end of the analyzed period, an increase in the average length of stay was recorded compared to the base year, by 18.81%.

Table 5

The average length of stay, during the period 2013-2022, in the municipalities of Suceava and Câmpulung Moldovenesc

Years	Overnight stays (number)		Arrivals (number of persons)		Average length of stay (days)	
	Suceava	Câmpulung Moldovenesc	Suceava	Câmpulung Moldovenesc	Suceava	Câmpulung Moldovenesc
2013	114741	24763	74129	13321	1.55	1.86
2014	123692	22804	81489	13235	1.52	1.72

2015	170217	26314	91040	12933	1.87	2.03
2016	140053	26075	93058	13437	1.51	1.94
2017	151081	34965	101412	16896	1.49	2.07
2018	149456	37068	103139	17498	1.45	2.12
2019	155174	46566	99129	19482	1.57	2.39
2020	75934	19909	51915	9702	1.46	2.05
2021	143711	50007	99868	23344	1.44	2.14
2022	188944	65305	120807	29564	1.56	2.21

CONCLUSIONS

Analyzing the absolute and relative dynamics of arrivals in the Municipality of Suceava during the period 2013-2022, it can be observed that the number of tourists arriving increased significantly in 2022 compared to 2013, by 62.97%. Overall, the average level of arrivals recorded 91,598.6 persons, with an absolute increase of 5,186.44 persons and a relative increase of 5.5%. This increase may be attributed to the economic growth of the area and also to the increased interest of tourists in cultural tourism in the Municipality of Suceava. Investigating the absolute and relative dynamics of arrivals in the Municipality of Câmpulung Moldovenesc during the same period, it can be observed that there was a very good increase in the rate of dynamics, by approximately 121.94% at the end of the analyzed period compared to the base year. Overall, the average level of arrivals in the Municipality of Câmpulung Moldovenesc recorded 16,941.2 persons, with an absolute increase of 1,804.78 persons and a relative increase of 9.2%. Analyzing the absolute and relative dynamics of overnight stays during the period 2013-2022 in the Municipality of Suceava, it was observed that their number increased in 2022 compared to 2013, by 64.67%. Overall, the average level recorded 141,300.3 overnight stays, with an average absolute increase of 8,244.78 overnight stays and a relative increase of 5%. In the Municipality of Câmpulung Moldovenesc, it was observed that their number increased significantly in 2022 compared to 2013, by 163.72%. Overall, the average level recorded 35,377.7 overnight stays, with an average absolute increase of 4,542.66 overnight stays and a relative increase of 11%.

The average length of stay for the Municipality of Suceava recorded a slight increase of only 0.64% compared to the base year at the end of the analyzed period, 2013-2022, while in the Municipality of Câmpulung Moldovenesc, there was an increase in the average length of stay compared to the base year, by 18.81%. The fact that there was an increase in the average length of stay in the two analyzed municipalities indicates an increase in the purchasing power of customers, especially for the Municipality of Câmpulung Moldovenesc, for the tourist services offered, and also the practice of appropriate tariffs for the services provided.

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