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Two-tier seasonal concentration of tourism in the European Union

Abstract: The market for tourist services is subject to the most significant impact of seasonality among all sectors of the economy. Due to growing wealth and the increasing amount of free time, the significance of this sector is on the rise. This research aims to outline the degree of seasonality by month in EU member states and identify changes in seasonal tourist concentration and its varying levels from 1990 to 2018. The research uses data on the actual numbers of overnight stays of nationals and non-nationals from the EUROSTAT databases. The measures include absolute and refined indicators of seasonality and the Gini coefficient. The analysis has enabled three groups of countries to be identified according to different concentration levels. The classification of a specific country into a group seems to be helpful in planning for their domestic market. Moreover, a novelty in the study of the tourism services market is the identification of a two-stage 8-year cycle in seasonal tourism concentrations in the European Union.

Keywords: quantitative research; seasonality; tourism management; two-tier cycle

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Introduction

Global economic development coupled with growth in affluence has led to conspicuous economic and social changes (Bilen, Yilanci, Eryüzlü, 2015). Growing specialisation, which has been long-observed, along with an accompanying increase in efficiency, has resulted in time savings, i.e. more free time available to use in different ways (Croes et al., 2021). It can be used productively (in the economic sense), but new ways of spending it have also emerged. Spheres of life that were out of reach for wider social groups until recently have become accessible almost to everyone. On the other hand, providers of traditionally 'elite' services have noticed that this general availability can bring more profits. These changes

include tourism development (Seghir et al., 2015) which has become more egalitarian and widespread. Apart from specific forms with extremely high participation costs, tourism is an inherent part of social life today. The global market for tourist services is growing at an annual rate of approximately 4.1% (Tourism 2020), with the highest rates in the Middle East (6.7%) and South-East Asia (6.5%). Europe still makes up 50% of all tourists despite the relatively low growth rate of tourist services in this region (resulting from its already high level). For this reason, the European market for tourist services can be seen as relatively stable and suitable for analysis in international and temporal terms (Kozicka, Szopa, 2016).

Seasonality and its determinant

One of the critical problems players face in the market for tourist services is seasonality (Chung, 2009; Fernández-Morales, 2003). This results from several factors such as:

- demand trends in connection with:
  - the frequency of vacations based on the need to travel with children, the regulations of labour laws and the typical practices in a given country,
  - the school system in a given country and the schedule of the school/academic year (Senbeto, Hon, 2019),
  - the frequency of national holidays and 'long weekends',
  - the wealth of society and the tendency to use financial resources in the market for tourist services.
- supply trends in connection with:
  - labour costs and the resulting prices of services in the domestic market,
  - the development level of tourist and transportation infrastructure,
  - the extent to which the market is open to foreign service providers,
  - geographic location in terms of accessibility to passenger transportation and other markets,
  - appeal to potential tourists,
  - conveniences and difficulties in legal, administrative and political terms,
  - the situation on the global market.
- natural phenomena (seasons) and environment (topography, location etc.) (Butler, 2001),
- the political situation (domestic stabilisation, safety, possible terrorist threats).

It would be not easy to find any other economy sector that is so sensitive to the impact of seasonality. This situation generates severe problems for managing tourist services, although some of its aspects, such as seasonality resulting from weather and climate conditions, are relatively predictable, at least in the medium term (Koenig-Lewis, Bischoff, 2005). Enterprises operating in this market need to consider that the sale of most services must be organised in a limited time frame coupled with an extreme intensification of demand. This causes more organisational difficulties in terms of sales, services, logistics etc. Therefore, the critical aspect is the organisation, i.e. the effective distribution of workload and its pace. This cannot be easy due to working times and the limited possibilities of staff management. For this reason, the market players must have a good knowledge of the consumer market, which is helped by diverse types of demand analysis divided into appropriate time units and geographic locations (Cooper et al., 2008). This paper focuses

on analysing statistical data for EU member states, investigating the seasonality of tourist trips with the use of Eurostat data.

In analysing the impact of repetitive phenomena on an economy, cyclicality and seasonality are considered (Anderson, Sweeney, Williams, 1993). The latter is characterised by annual repeatability and is recognised in many areas of the economy, indicating growth and downturns in repeatable cycles (Nadal, Font, Rossello, 2004). Despite the high level of recognition, seasonality is treated as unfavourable due to strong variations in demand levels (Velikova, Tzvetkova, 2018). Attempts are made to minimise its impact in individual sectors and tourism, for example, by promoting types less susceptible to seasonality, such as cultural tourism (Tiziana, Ilde, 2011) and sports tourism (organised out of season) (Higham, Hinch, 2002).

Research methodology

Secondary data from the EUROSTAT database was used in the research. The available data pertains to time series from January 1990 (for certain countries) to December 2018. The longest of the series under analysis covers 348 observations. Data for nationals and non-nationals were taken into account. The monthly frequency of the data allows seasonality to be captured at monthly intervals in particular countries. Multivariate statistical analysis was used as a research tool – mainly of time series with seasonality, correlation and concentration analyses.

The basic trend equation used in the research is:

$$\hat{y}_t = (b + at)O_i \qquad t\in(1,\ldots,n) \qquad i\in(1,\ldots,12)$$

where:
y_t – the number of overnight stays (national or non-national) in a given country in the period t,
t – time variable,
O_i – seasonality index for the season (month) i:

$$O_i' = \frac{\sum_{j=1}^{29} w_j}{29} \quad \text{for } i = 1, 2, \ldots,12$$

$$w_j = \frac{y_j}{\hat{y}_j}$$

leaned seasonality indicators were used and determined based on the average values of individual indicators estimated for historical data.

$$k = \frac{12}{\sum_{i=1}^{12} O_i'} \qquad O_i = k \cdot O_i' \quad \text{for } i = 1, 2, \ldots,12$$

The Pearson correlation coefficient was used for the correlation analysis and the Gini coefficient for the concentration analysis:

$$G(x) = \frac{\sum_{i=1}^{n}(2i - n - 1)x_i}{n^2\bar{x}}$$

where:
x_i – unit i -th value of the studied phenomenon,
– arithmetic mean,
i – position in a row,
n – sample size.
Lorenz curves were used as well for the concentration analysis.

Seasonality in the market for tourist services in Europe

In aggregate terms, slight growth in tourism in the EU member states can be found. This is evaluated individually for each country, while the available data indicate two categories of tourists, i.e. national and non-national. Based on the definition of a tourist as "travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes" (United Nations, 1994), we take into account overnight stays in hotels on the territory of a given country. The analysis of this data reveals an approximately linear sequence of specific changes over time (without considering seasonality).

Table 1. Estimates of parameters of trend equations for individual countries divided into national and non-national tourists

Country	Non-national	National	Total
Austria	3983.7	3097.3	4308.9
Belgium	1487.1	481.4	495.5
Bulgaria	3954.5	2674.3	4869.8
Croatia	26760.0	967.6	16098.8
Cyprus	473.8	16.1	716.8
Czechia	3934.0	2236.1	1631.3
Denmark	12.8	1722.4	1032.7
Estonia	862.5	644.8	1213.4
Finland	973.1	1477.6	2192.2
France	–25326.2	7754.6	–18339.1
Germany	13068.6	19621.1	23988.8
Greece	15493.6	3208.3	13253.4
Hungary	1882.0	3799.3	2633.1
Ireland	–1161.7	6556.4	6892.4
Italy	31455.9	11020.3	38451.4
Latvia	1104.7	248.5	881.9

Lithuania	1332.5	1766.7	1987.7
Luxembourg	11.5	–5.9	–69.1
Malta	250.6	56.1	36.2
Netherlands	5695.2	7599.6	10294.2
Poland	3793.5	14889.7	10028.3
Portugal	5757.2	2371.5	4732.8
Romania	977.4	2999.0	911.4
Slovakia	40.8	1413.2	–154.7
Slovenia	2222.6	486.8	1318.8
Spain	55867.8	28226.7	75846.4
Sweden	2992.0	7963.3	9877.2
United Kingdom	25090.7	–30217.2	–24908.6

Source: EUROSTAT data, developed by the author

The available information indicates an average decrease in non-national tourism in France by nearly 25,300 and in Ireland by 1,200 per month. In France, it generated a reduction in the overall number of tourists. A decrease in national tourists by 400 in Denmark and 120 in Malta did not generate an overall downturn. Meanwhile, Great Britain showed a significant decline in national tourism, i.e. by 30,200 per month, resulting from a robust decreasing trend from 1990 to 1994.

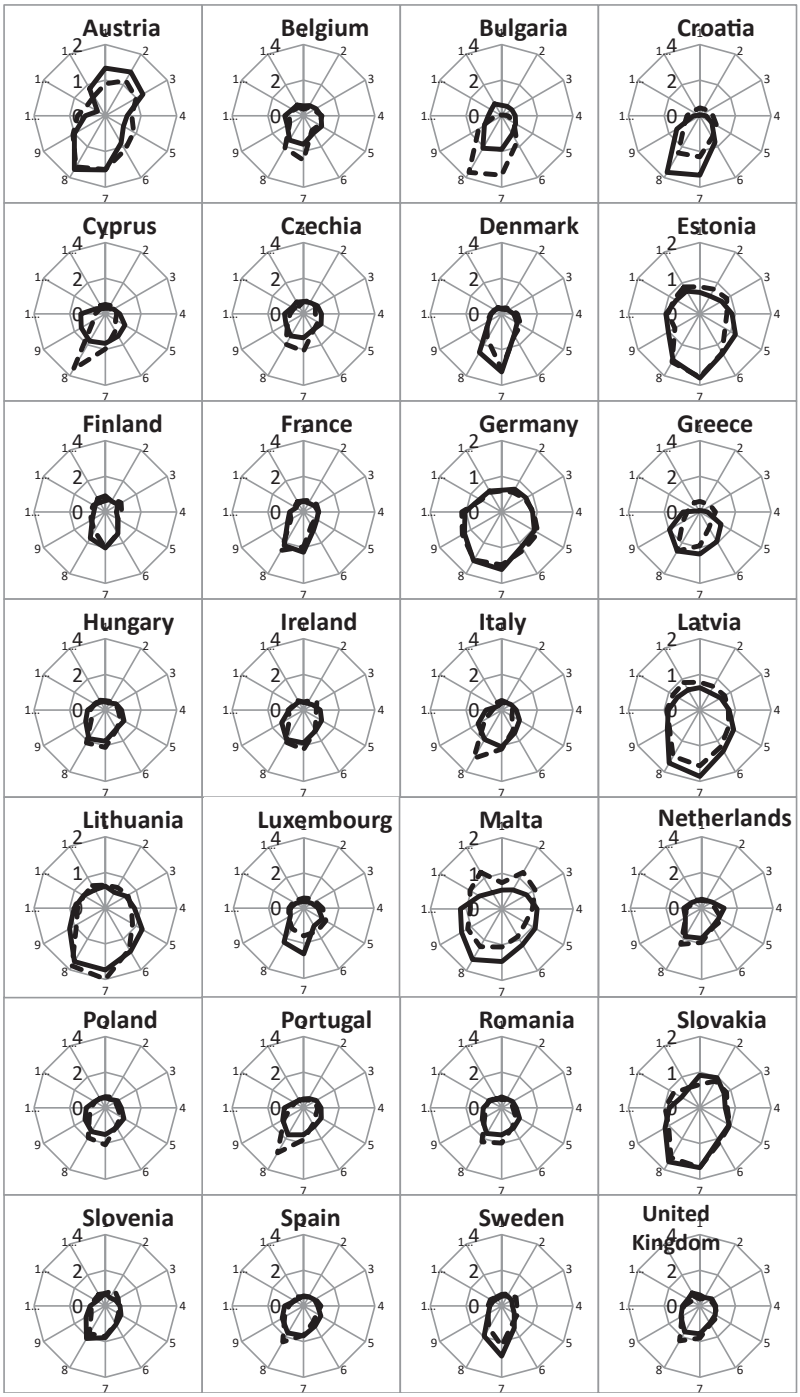
The values presented in Table 1 reveal a solid general growth in tourism in the EU from 1990 to 2018. Considering the available data (for most countries or supplemented with data on neighbouring countries) from 2003 to 2018, the annual growth in the number of tourists was 2.86%. However, the growth index in the most popular months of July and August amounted to 2.11%, which indicates a significant decrease in seasonality. Therefore, it is advisable to analyse the changes in monthly data.

As has been already noted, trends in tourism depend on multiple individual features for particular regions, with seasonality translating into results for the whole country (Silva et al., 2018). This justifies an analysis of changes in the market for tourist services from the perspective of particular countries. Depending on the specific conditions in each country, high levels of tourism may occur in different months (Mishral, Rout, Pradhan, 2018). For this reason, the analysis focused on country-specific data. Individual seasonality indicators were identified separately for each country, and they determined the raw relative indicators followed by the refined relative indicators. Importantly, seasonality trends changed for particular countries depending on the time period under consideration.

The data presented in Figure 1 reveal significantly divergent (for the majority of the countries) preferences in terms of the season chosen for tourism by nationals and non-nationals. The tourism organisation can benefit from this situation all the more so because the tourist infrastructure is usually used highly irregularly. It becomes overexploited during the primary tourist season, while it deteriorates in other periods and thus generates additional costs related to its ongoing maintenance and the preparation for subsequent seasons.

The variation in seasonality for nationals (49.0%) was only slightly lower than for non-nationals (51.2%). The country with the lowest variation was Malta where V = 16.0%,

Figure 1. Distribution of seasonality indicators (months) for nationals and non-nationals in individual European Union member states.



– – – national; ——— non-national

Source: EUROSTAT data, developed by the author

Table 2. Variation in the monthly seasonality for individual countries and maximum seasonality indicators along with respective months divided by national and non-national tourists

Country	National			Non-national		
	Variation	Max	Month	Variation	Max	Month
Austria	30.8%	1.648	8	43.3%	1.739	8
Belgium	61.1%	2.487	7	32.0%	1.597	7
Bulgaria	47.8%	2.103	8	108.2%	3.003	8
Croatia	66.8%	2.398	8	124.2%	3.660	8
Cyprus	87.6%	3.584	8	53.6%	1.755	8
Czechia	49.0%	2.093	7	23.2%	1.428	8
Denmark	75.7%	3.118	7	90.6%	3.252	7
Estonia	32.5%	1.769	7	35.9%	1.799	7
Finland	37.4%	2.024	7	43.5%	2.019	7
France	56.5%	2.487	8	57.3%	2.257	7
Germany	33.3%	1.552	8	32.1%	1.615	7
Greece	58.2%	2.526	8	93.6%	2.528	8
Hungary	53.4%	2.130	8	45.6%	1.850	8
Ireland	55.2%	2.220	7	50.9%	1.908	8
Italy	80.7%	3.128	8	59.1%	2.066	7
Latvia	26.1%	1.565	7	41.3%	1.861	7
Lithuania	45.4%	1.994	7	41.9%	1.737	7
Luxembourg	36.9%	1.583	7	69.7%	2.609	7
Malta	16.0%	1.215	8	35.0%	1.634	8
Netherlands	59.3%	2.349	8	44.0%	1.841	8
Poland	48.3%	2.072	7	34.8%	1.543	8
Portugal	68.4%	2.911	8	39.6%	1.743	8
Romania	53.7%	2.208	8	36.2%	1.663	8
Slovakia	31.4%	1.669	7	35.4%	1.743	8
Slovenia	36.2%	1.803	8	48.6%	2.111	8
Spain	50.5%	2.330	8	42.9%	1.750	8
Sweden	43.6%	2.238	7	68.7%	2.815	7
United Kingdom	53.8%	2.261	8	33.5%	1.687	8

Source: EUROSTAT data, developed by the author

with the maximum seasonality for nationals exceeding the monthly average only by 24.6%. Latvia also showed similarly low indicators (V = 29.2%, O7 = 1.641). On the other hand, high values for both variation and maximum seasonality were found in Cyprus (V = 84.2%, O8 = 3.485), Denmark (V = 72.9%, O7 = 3.028) and Italy (V = 79.8%, O8 = 3.093). The

least seasonality for non-nationals in the period under analysis was recorded in Czechia (V = 22.4%, O8 = 1.425). The greatest variations were observed in Denmark (V = 86.8%, O7 = 3.144), Greece (V = 94.9%, O8 = 2.562), Bulgaria (V = 108.8%, O8 = 3.036) and, above all, Croatia (V = 127.0%, O8 = 3.745). While the annual national figures did not fall below a specific level (the lowest indicator was Denmark O1 = 0.323), their situation was much more dynamic. In Croatia, the seasonality indicator for the period from November to March did not exceed 0.100 (min = 0.037 in January), while in Greece it did not exceed 0.100 in December, January and February (min = 0.068 in January). The most favourable situation in relation to nationals was found in Malta (min = 0.764 in May), Latvia (min = 0.741 in February) and Estonia (min = 0.744 in January). A normalized situation with respect to non-nationals could only be found in Czechia (min = 0.695 January).

Germany revealed the most convergent distribution of seasonality in relation to other countries. A statistically significant correlation was confirmed with respect to all countries except for Austria (Figure 2), which demonstrated a highly unique and distinct seasonality. The reason might be that Austria has no access to the sea, and in terms of seasonality, the winter period is significant (skiing, mountaineering). Statistically significant correlations for Austria included Slovakia, Finland and France. The situation is similar for nationals, but tourism in Malta appeared to be uncorrelated to other countries. In this respect, developments in recent decades must be taken into account.

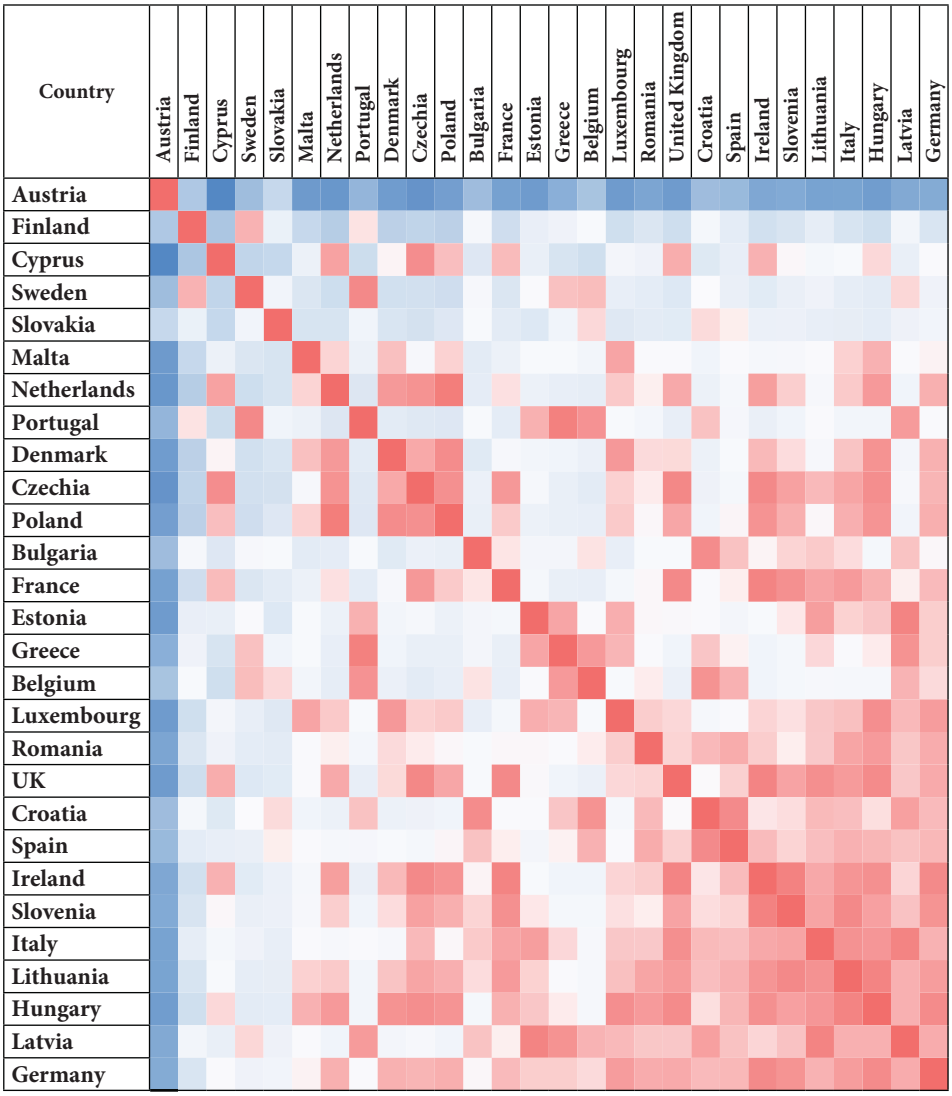
In connection with turbulent economic transformations, an attempt was made to trace seasonality changes during recent years. The available time series were divided (if possible) into two sections. The first covers the years before 2010 when due to the recession, the level of tourist services was considerably lower than in other periods; the second covers the post-recession years of 2011–2018 (Figure 3).

It should be noted that a change of +/– 25% was taken into account. Such positive (+) changes were observed in France (5 months), the Netherlands (3 months) as well as Denmark and Lithuania (1 month). This testifies to a higher degree of irregularity: more significant seasonality in the period following the recession. Significant negative (–) changes were observed in France (7 months), Spain and Croatia (4 months) and Cyprus (3 months). These proportions indicate a downward irregularity, i.e. a decreased share for specified seasons after the recession than before. It pertains to ‚less predictable' months in terms of weather in the specified countries, making these months less attractive to tourists.

Is it, then, possible to identify trends in recent years for tourism in individual European countries (or in specific groups)? The analysis of the data presented in these calculations allows EU member states to be divided into several groups, considering that national and non-national visits should be kept separate in the analysis. If only for objective reasons (distance, time), tourist seasonality with respect to nationality shows considerably less variation. Group I (non-national) includes Denmark, Finland, France, Italy, Luxembourg and Sweden (Figure 4) – these countries revealed significant seasonality (the indicator exceeds 2 in July, but it does not exceed 0.4 in November–February for some countries).

Finland stood out in this group regarding the most significant demand in December and January (O12 = 0.928, O1 = 0.937). Italy revealed a high level of seasonality (O9 = 1.523) in September. Unexpectedly, France demonstrated the lowest demand in June compared to other countries (O5 = 1.109). It should be noted that this group is by definition

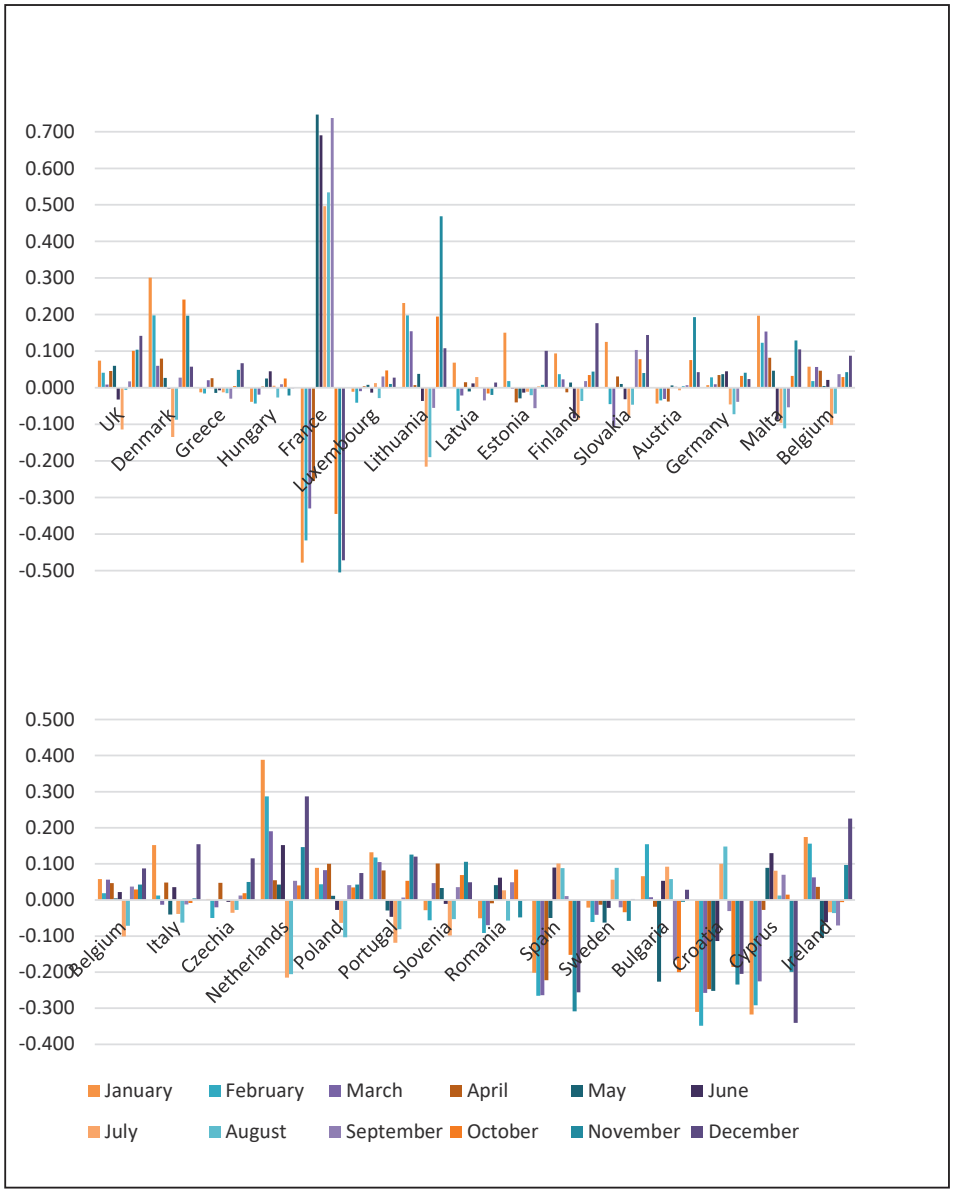
Figure 2. A correlogram presenting the interdependence between the (monthly) seasonality indicators for EU member states concerning non-national overnight stays



- high positive correlation
- high negative correlation

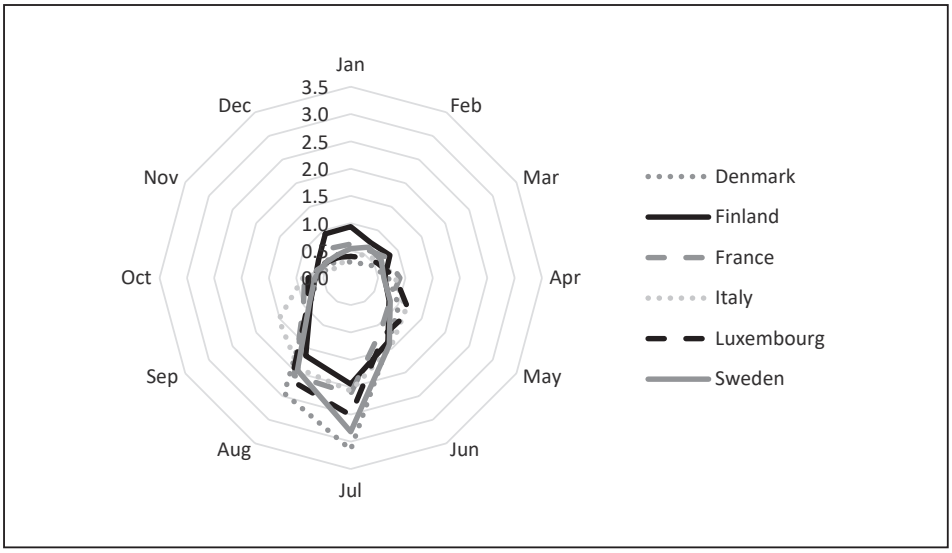
Source: EUROSTAT data, developed by the author

Figure 3. Proportions of refined indicators of seasonality (monthly) before and after the recession in the European Union



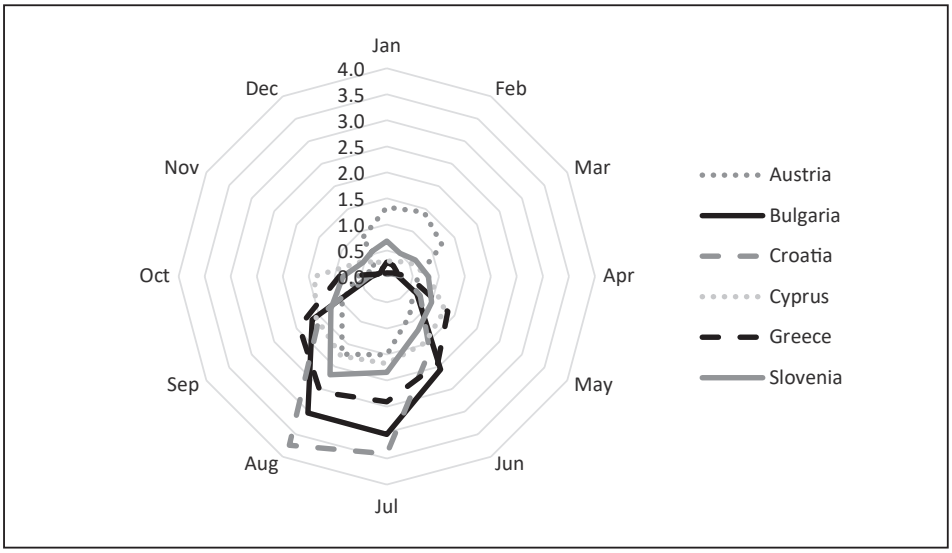
Source: EUROSTAT data, developed by the author

Figure 4. Seasonality indicators for the six countries with the highest seasonality in July (Group I)



Source: EUROSTAT data, developed by the author

Figure 5. Seasonality indicators for six countries with the highest seasonality in August (Group II)

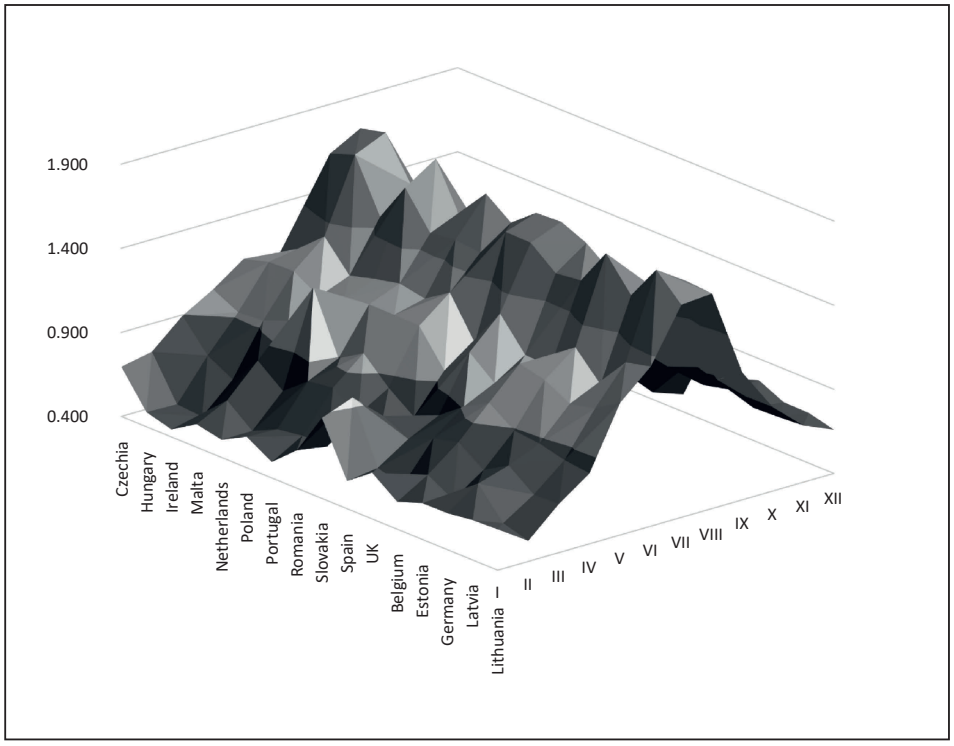


Source: EUROSTAT data, developed by the author

artificial, and the variation in seasonality indicators in particular months is within the range of 9.3%–40.3%.

Group II is the least homogeneous and includes Austria, Bulgaria, Croatia, Cyprus, Greece and Slovenia. These countries (Figure 5) demonstrated unique January and February

Figure 6. Seasonality indicators for the 16 countries with the most balanced seasonality (Group III)



Source: EUROSTAT data, developed by the author

figures (Croatia O1 = 0.037, O2 = 0.043). Austria showed a seasonality indicator of 0.264 in November, while in all other months, it exceeded 0.500 (1.000 during five months, but never reaching 2.000).

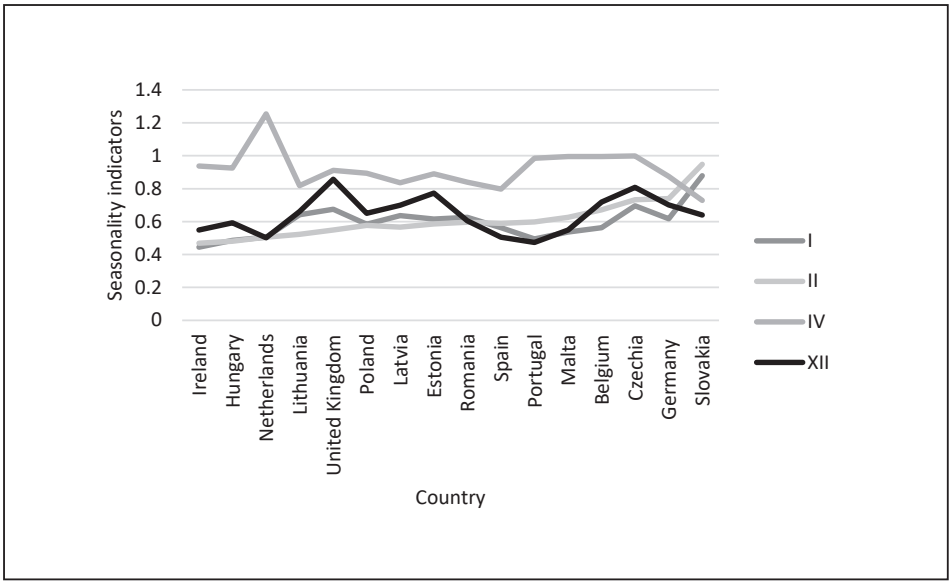
Apart from major deviations in the case of Austria, there was a higher demand in Cyprus in October (O10 = 1.387) and the extension of the summer vacation period for June and September in all countries except for Austria and Slovenia. The seasonality variation in this group was significant, exceeding 1005 in February.

Group III includes countries with seasonality indicators below 2 with a conspicuous peak in July and/or August and a downturn from November to April (with exceptions). This group covers the 16 remaining countries (Figure 6).

This group looks almost homogeneous. Indeed, the seasonality indicators for May, June, July, April and October were similar (Figure 6). The variation never exceeded 10.5% in March, September, and November, so it was close to being homogeneous. However, the variation during the remaining months was higher.

February was marked with the most significant variation, followed by January and December. On a closer look, a tourist operator should consider organising trips to the Netherlands in April, when this country is more prevalent in relation to the average value for other countries and in comparison to mean annual demand (Figure 7). In turn, the demand generated by non-nationals in the United Kingdom in December was higher than

Figure 7. Seasonality indicators in the months with the most significant variation for the 16 countries from Group III



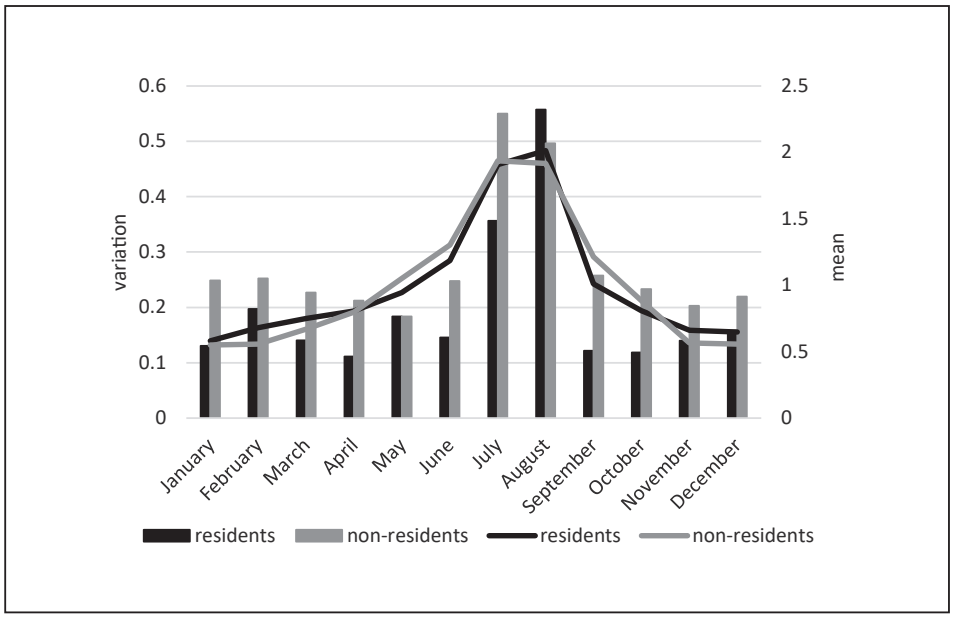
Source: EUROSTAT data, developed by the author

in all other countries from this group. Slightly higher demand in December could also be observed in Estonia, Belgium and Czechia. Meanwhile, Slovakia demonstrated a lower non-national demand in January and February compared to other countries. Although some of these indicators were below 1, their reference points should be other possibilities so that this information can be crucial to tourist agencies.

In the context of nationality, four groups can be identified. The first group includes countries with high seasonality exceeding 2.000 in July: Belgium, Czechia, Finland, Poland, Ireland and Sweden. The second group reveals the most significant level of tourism in August: Bulgaria, Croatia, Cyprus, France, Greece, Italy, the Netherlands, Hungary, Portugal, Romania, and Spain. Both groups showed a relatively low level of tourism between October and April (the indicators do not significantly exceed 1.000). The third group includes Lithuania, Latvia, Estonia and Slovakia, where the seasonality indicators significantly exceeded 1.000 in June, July and August but never reached 2.000. At the same time, their values during the remaining months never fell below 0.640. The other countries (which hardly form a group from the perspective adopted in this article) revealed a low level of seasonality within the range of 0.500–1.800 with a highly diverse frequency of visits (stays) in different months. Compared with non-nationals, the variation within the specified groups was lower and never exceeded 30%, either in aggregate or individually.

The results indicate (in most cases) the need to adjust the tourist offer to existing disruptions in the market with respect to the frequency of trips, which should be done on an individual basis for each country. As regards internal demand, the variation is considerably lower.

Figure 8. The average seasonality in particular months and its variation



Source: EUROSTAT data, developed by the author

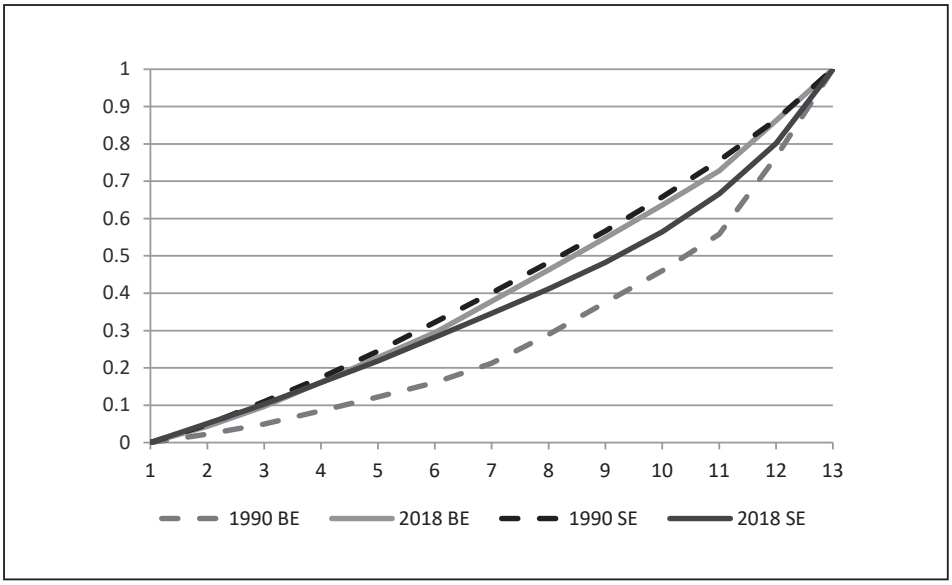
While the levels of seasonality for nationals and non-nationals were almost identical on average for the EU, variation by countries was higher for non-nationals (Figure 8). In the high season (August), the variation was higher for nationals, which resulted mainly on administrative grounds (i.e. the organisation of the school year and work schedules). A similar level of variation could be observed only in May, while the differences could reach up to 17 percentage points during other months. The most significant divergences between non-national and national were intensifying tourism in July, September and January.

Seasonal concentration on the market for tourist services in Europe

A concentration coefficient can function as a measure of seasonality. The relevant sources usually refer to the Gini coefficient (Þórhallsdóttir, Ólafsson, 2017; Suštar, Laškarin Ažić, 2019). This research estimates the values of Gini coefficients for all countries in the period where data are available. In general terms, the seasonal concentration level for EU member states decreased from 0.302 to 0.248 from 1990 to 2018, and a decline in seasonal concentration in tourism occurred in most economies. Integration and free movement across borders are essential factors contributing to this situation. As a result, movement in the periods of ‚enforced' holidays in different countries was levelled.

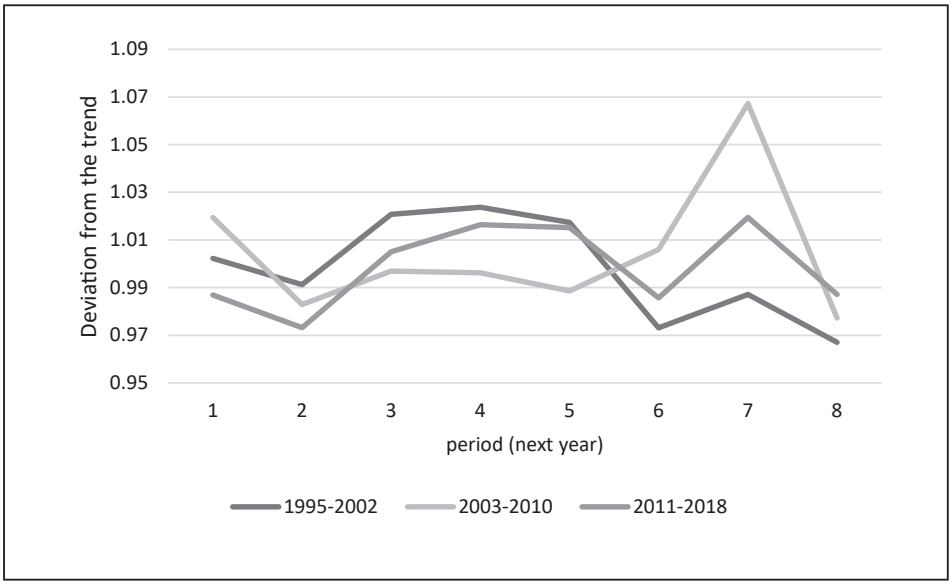
Moreover, an attractive offer can make it easier to gain foreign customers. The seasonal concentration level in the period under consideration dropped in 21 countries, most significantly in Belgium from 0.400 to 0.177 (Figure 9) and Ireland from 0.368 to 0.161. Lower levels could also be observed in Finland (0.120) and Slovakia (0.149). Countries

Figure 9. Lorenz curves for the overall concentration (in particular months) in tourism in Belgium and Sweden in 1990 and 2018



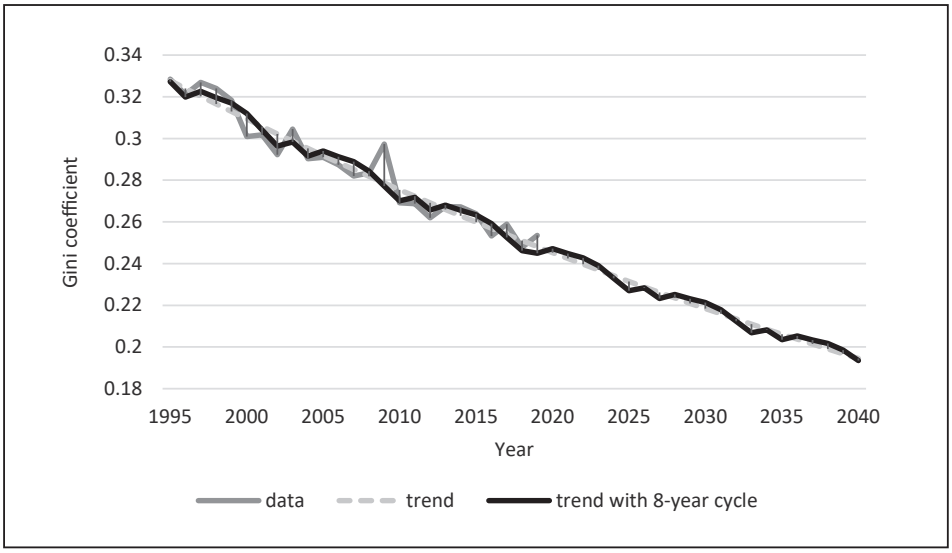
Source: EUROSTAT data, developed by the author

Figure 10. The 8-year (two-tier) cycle of tourism concentration for the European economy



Source: EUROSTAT data, developed by the author

Figure 11. The change in the tourism seasonal concentration level in the European Union from 1995 to 2018, along with the trend and adjustment assuming an 8-year cycle



Source: EUROSTAT data, developed by the author

with the highest seasonal concentrations were Croatia (0.613), Greece (0.490) and Bulgaria (0.439). The level increased from 0.145 to 0.235 in Sweden and 0.252 to 0.337 in Cyprus.

In general terms (for the entire EU), the average annual seasonal concentration decrease was approximately 1.1%, suggesting an apparent 4-year cycle. In practice, we can observe an 8-year (two-tier) concentration cycle. Usually, the first cycle stage shows the seasonal concentration level from before the four periods (Figure 10), and then it declines rapidly. Next, the downturn slows down for the subsequent three periods, then it accelerates and encounters a disruption: a dynamic rise and drop. Then the cycle starts anew. This pattern has been conspicuous since the 1990s. One noticeable irregularity occurred in 2009, resulting from the financial crisis, which reached its peak at this time.

The estimates based on the analysis of the exponential trend allowed us to identify a resistance line for the concentration in the near or more distant future. If we assume similar changes, the tourism seasonal concentration level in the EU will decline to 19–20% in 2040 (Figure 11).

The forecasts presented are highly probable today, but they could change. It should be noted that in addition to ongoing political changes, other factors exist that have a more direct impact on tourism. The key factors include means of transport and fuel. It is difficult to predict changes in collective transport within the next ten or twenty years, especially concerning foreign tourism. The availability of fuel may cause changes in prices for selected destinations and, consequently, influence their popularity. As regards the broader EU perspective, seasonal concentration keeps decreasing in the longer term, while tourist service consumption is on the rise.

Discussion

The research in the article allows the conclusions presented below to be drawn. The use of simple methods does not give any worse results than the use of more advanced (Volo, 2010), and the seasonal concentration factor determined for individual years seems to be a successful approach (Rosselló, Sansó, 2017). The proposed measures of variation (Turrión-Prats, Duro 2018) do not show significant, substantial changes in the long run unless additional circumstances (crises) arise. Similar research on smaller samples shows the impact of the crisis in 2008 on the level of seasonality in 2007, in the author's opinion, wrongly indicated (Suštar, Laškarin Ažić, 2019). The economy can react faster to phenomena imperceptible to economists, but probably not so much in advance. In the presented research, means were used to compare the situation several years ago with today. Even detailed research on seasonal concentration (Fernández-Morales et al. 2016), despite its undoubted advantages and ‚added value', when examined too quickly, will not allow the indicated regularity to be noticed.

The indicated 'specific' seasonality and its two-tier character, which should be treated as a new perspective, have not been noticed in individual studies (Vergori, 2016), while the perception of change over time is not unique. Coshall et al. (2015) saw this at the regional level but analysed it more geographically. When analysing the extensive literature on the subject, the impression is that identification of seasonality is not as difficult to reach (Koenig-Lewis, Bischoff 2005) as understanding its essence and possible mitigation, despite the constant steps taken to this end (Jang, 2004). The indicated two-tier pattern seems to be relatively regular, while it is an open question to find its causes. It is possible that in the case of the simultaneous occurrence of two relatively regular cycles affecting the demand for tourist services, mutually overlapping with the simultaneous shifting peaks causes the two-tier phenomenon.

Conclusions

The research results expressly indicate general trends in tourism development in EU member states. Despite noticeable differences (especially in the conspicuously unique configuration of seasons in Austria), it is possible to identify multiple similarities both in levels and changes in recent years. The countries can be divided into three distinct groups. The first group includes Denmark, Finland, France, Italy, Luxembourg and Sweden. These countries show the most significant level of tourism in July, while in September–April, seasonality does not exceed the base level (1), though, in April and September, it usually reaches a range of 0.8–0.9. The second group with the highest seasonality level in August is the most diversified group, including Austria, Croatia, Cyprus, Bulgaria, Greece and Slovenia. Seasonality in the weakest months drops below 0.3 or even below 0.1 (Greece, Croatia). The third group includes countries whose highest level of tourism is in the summer months, the variation in seasonality is below 48%, and its minimum indicators are within the range of 0.44–0.70.

Irrespective of the above groups, the aggregate approach reveals a progressive monthly 'deconcentration' which can be identified with the neutralisation of seasonality. The seasonal concentration level dropped by nearly 0.12 pp within the last 25 years, and its average annual decline is approximately 1.1%. An exciting tendency in this respect is the 8-year two-tier cycle of a downturn which should be explored in further research for its possible causes.

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