THE RELATIONSHIP BETWEEN ACCOMMODATION STRUCTURE AND SEASONALITY

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Abstract

Purpose – The purpose of this study is to examine the role of accommodation structure in shaping tourism demand seasonality in coastal destinations. Particular emphasis is placed on comparing the seasonality of hotel accommodation with other types of lodging, as well as on analysing the impact of the share of the hotel sector on the overall seasonality of a destination. The study assumes that seasonality is not exclusively a climatic or demand-driven phenomenon, but is to a significant extent determined by the structure of tourism supply.
Methodology – The empirical research was conducted on a sample of 45 destinations in the Adriatic Croatia region. Seasonality was measured using the Gini coefficient, calculated separately for hotel accommodation, other types of accommodation, and total accommodation capacity. The analysis included descriptive statistics, a paired-samples t-test to determine differences in seasonality between accommodation types, Pearson correlation analysis, and simple linear regression to assess the impact of the share of hotel accommodation on overall destination seasonality. This approach enabled the quantification of the structural contribution of the accommodation model in explaining seasonal patterns.
Findings – The results indicate that hotel accommodation exhibits a statistically significantly lower level of seasonality compared to other types of accommodation, with a very large effect size. Furthermore, a higher share of hotel accommodation is associated with lower overall destination seasonality, while accommodation structure explains nearly one-fifth of the variability in seasonality across the observed destinations. The findings confirm that seasonality is partly endogenously generated by the structure of supply, and that a development model dominated by private accommodation contributes to higher seasonal concentration of tourism demand.
Originality of the research – This paper contributes to the theoretical discussion on seasonality by reinterpreting it as a structural-economic category rather than a purely climatically determined phenomenon. It empirically confirms the importance of the institutional and organizational structure of supply in shaping the annual dynamics of tourism demand. In addition to its theoretical contribution, the study provides practical guidelines for tourism policy aimed at reducing seasonality, balancing the structure of accommodation capacity, and promoting long-term sustainable development of coastal destinations.
Keywords accommodation structure, tourism seasonality, Gini coefficient, Adriatic Croatia

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INTRODUCTION

Tourism represents one of the key economic activities in many Mediterranean destinations, where its development is often accompanied by pronounced temporal and spatial concentration of tourism activity. One of the fundamental structural characteristics of such development is tourism seasonality, which is reflected in the uneven distribution of tourism demand, arrivals, and overnight stays throughout the year (Baum & Lundtorp, 2001). Although seasonality is to some extent inherent to tourism activity, particularly in destinations relying on natural and climatic resources, persistently strong seasonal patterns represent a significant challenge for the sustainability of tourism development (Duro & Turrión-Prats, 2019).

In earlier research, seasonality was predominantly associated with climatic and calendar-related factors, with a primary focus on patterns of tourism demand behaviour. However, contemporary literature increasingly emphasises the role of structural characteristics of tourism supply in shaping seasonal patterns (Senbeto et al., 2024; Saito & Romão, 2018; Capó Parrilla et al., 2006). In particular, the structure of accommodation capacity is highlighted as one of the key determinants of seasonality intensity, since different types of accommodation exhibit significantly different operating patterns and levels of adaptability outside the peak tourist season (Cisneros-Martínez, 2025; López-Bonilla & López-Bonilla, 2006; Baum & Lundtorp, 2001).

Pronounced seasonality generates not only economic consequences, such as low utilisation of accommodation capacity, employment instability, and reduced productivity, but also significant social, spatial, and environmental implications (Rosselló Nadal et al., 2004; Baum & Lundtorp, 2001). During peak demand periods, increased pressure is placed on infrastructure, public services, and the quality of life of the local population, while during the off-season destinations face insufficient economic activity and underutilisation of existing resources (Ćorluka, 2019). In this context, seasonality is increasingly viewed as one of the key drivers of overtourism, particularly in coastal destinations characterised by a dominant model of mass seaside tourism (Martín et al., 2020; Perles-Ribes et al., 2017). Therefore, it is essential to identify the underlying causes of seasonal patterns in tourism performance and to implement corrective measures aimed at mitigating their intensity.

The Adriatic Croatia region represents a paradigmatic example of a destination with pronounced tourism seasonality. Tourism development in this region is strongly oriented towards the seaside leisure tourism product, which is spatially concentrated along the coast and temporally restricted to the summer months (Ćorluka & Vukušić, 2017). Such a development model has resulted in a high dependency of local economies on a short peak season, as well as growing challenges related to spatial, infrastructural, and environmental overloading (Duro & Turrión-Prats, 2019). At the same time, the structure of accommodation capacity in Adriatic Croatia is characterised by the dominance of private accommodation, whose growth further intensifies the seasonal concentration of tourism demand (Kožić, Čačić & Sever, 2013). In the Republic of Croatia in 2025, private accommodation accounted for 61.0% of total available accommodation units and 61.9% of total bed capacity (Croatian Bureau of Statistics, 2026).

Recent studies increasingly suggest that tourism seasonality is not determined exclusively by climatic conditions and tourism demand patterns, but also by the structural characteristics of tourism supply, particularly the composition of accommodation capacity (Capó Parrilla et al., 2006; Duro & Turrión-Prats, 2019). Previous empirical findings indicate that hotels generally operate with more stable year-round demand, while private and other non-hotel forms of accommodation are more strongly concentrated in peak summer months (Kožić, Čačić & Sever, 2013; López-Bonilla & López-Bonilla, 2006). However, despite the growing recognition of accommodation structure as a determinant of seasonality, there is still a lack of destination-level empirical research that systematically examines this relationship in Mediterranean coastal destinations characterized by a dominant share of private accommodation. This research addresses that gap by examining whether hotel accommodation exhibits lower seasonality compared to other accommodation types and whether destinations with a higher share of hotel capacity achieve lower overall tourism seasonality. Accordingly, the study is based on two main assumptions: first, that hotel accommodation exhibits significantly lower seasonality than other forms of accommodation, and second, that a higher share of hotel accommodation contributes to a more even annual distribution of tourism demand. In this way, the paper contributes to the contemporary debate on tourism seasonality by conceptualizing it as a structural-economic phenomenon shaped not only by demand dynamics, but also by the organizational composition of tourism supply.

Despite the extensive literature on tourism seasonality, there is a relative lack of empirical studies that systematically examine, at the destination level, the relationship between accommodation structure and the intensity of seasonality (Senbeto et al., 2024). Accordingly, the aim of this paper is to empirically analyse the impact of accommodation supply structure on the level of tourism seasonality in Adriatic Croatia, using the Gini coefficient as a measure of seasonal concentration, which is widely recognised in the literature as a reliable tool for comparative analysis of seasonality across destinations of different sizes (Duro & Turrión-Prats, 2019; Fernández-Morales & Mayorga-Toledano, 2008).

1. LITERATURE REVIEW

Tourism seasonality represents one of the fundamental and long-standing structural characteristics of tourism activity, and in the literature, it is defined as the uneven temporal distribution of tourism demand, arrivals, and overnight stays throughout the year (Baum & Lundtorp, 2001). Such concentration of tourism activity within a relatively short time period leads to pronounced differences between peak and off-peak months. Butler (2001) argues that seasonality is not solely a consequence of climatic conditions and calendar constraints, but rather the result of a complex interaction between demand-side and supply-side factors. In the long term, pronounced seasonality generates a range of negative economic, social, and organisational consequences for destinations, including low utilisation of accommodation capacity, employment instability, reduced productivity, and increased infrastructural pressure during peak demand periods (Rosselló Nadal et al., 2004; Baum & Lundtorp, 2001).

Although earlier literature predominantly examined seasonality through the lens of tourism demand, contemporary research increasingly emphasizes the importance of supply-side determinants, particularly the structure of accommodation capacity, in shaping seasonal patterns (Cisneros-Martínez, 2025; Senbeto et al., 2024; Capó Parrilla et al., 2006). The accommodation sector represents a core component of tourism supply and plays a key role in determining season length, occupancy levels, and the overall stability of destination performance (Rosselló Nadal et al., 2004). A substantial body of research confirms that different types of accommodation exhibit distinctly different seasonal patterns. Capó Parrilla et al., (2006) empirically confirm that accommodation structure has a statistically significant impact on seasonality intensity. Their analysis of the Balearic Islands shows that destinations with a higher share of hotel accommodation experience less pronounced seasonal fluctuations compared to those dominated by apartments and other forms of private accommodation. The authors emphasize that hotels, due to their organized business operations, capacity to attract business and group tourism, and integration into package tours, achieve more stable demand throughout the year. López-Bonilla and López-Bonilla (2006) find that hotels, owing to differentiated pricing strategies, contractual arrangements with tour operators, and the development of off-season products (such as congress, health, and sports tourism), are more successful in mitigating seasonal fluctuations than private accommodation. Martín et al., (2020) show that destinations with a higher concentration of hotel capacity in urban coastal centres exhibit a more even annual distribution of overnight stays compared to peripheral and mono-functional tourist zones dominated by private accommodation. These findings suggest that the hotel sector contributes not only to reducing temporal seasonality but also to mitigating the spatial concentration of tourism activity. A study conducted in Wales shows that seasonality varies significantly depending on accommodation type: higher-category hotels are able to extend the season, while establishments such as bed and breakfasts and rural guesthouses experience shorter but more intense seasonal peaks (Koenig & Bischoff, 2005). The authors emphasize the need

for differentiated seasonality management strategies according to accommodation type. Duro and Turrión-Prats (2019), using econometric analysis, show that accommodation structure acts as a mediating factor between destination type and seasonality intensity, with destinations dominated by private accommodation exhibiting stronger seasonal concentration of overnight stays.

Capó Parrilla et al., (2006) state that destinations with more diversified accommodation structures achieve better capacity utilization outside the peak season. These results confirm that accommodation structure acts as an important mechanism for mitigating seasonal fluctuations. Baum and Lundtorp (2001) highlight that accommodation types oriented towards mass summer tourism, such as campsites and apartments, display significantly higher seasonal concentration compared to the hotel sector. Campsites, due to their functional and climatic dependency, operate almost exclusively within a limited seasonal window. Similar findings are provided by Adamiak (2018) who highlights that private accommodation is highly sensitive to climatic and calendar effects, whereas hotels, due to higher fixed costs, have stronger incentives to extend the season and diversify demand. Marques et al., (2021) find that private accommodation and secondary residences predominantly participate in peak-season demand, while hotels maintain relatively more stable demand throughout the year, particularly in destinations with developed selective tourism segments. Perles-Ribes et al. (2017) further warn that uncontrolled growth of private accommodation in coastal destinations increases seasonality and intensifies infrastructural pressure during peak periods. Accordingly, accommodation structure becomes a key element of destination sustainability, particularly in regions highly dependent on tourism.

Koenig and Bischoff (2005), in their analysis of Alpine and coastal destinations, conclude that establishments oriented towards a single dominant season experience extreme seasonal fluctuations and high fixed costs during the off-season, whereas hotels with year-round business models demonstrate greater resilience to seasonal shocks. A particular importance is attributed to the spatial dimension of seasonality. Ferrante et al. (2018) demonstrate a strong relationship between seasonal patterns and spatial distribution across European countries. Special research attention has been devoted to coastal and Mediterranean destinations, which are characterized by pronounced tourism seasonality. Research on tourism demand seasonality in Spain shows that, although hotels hold the largest share in accommodation supply, their seasonality remains strongly linked to the sun-and-sea tourism model (Duro & Turrión-Prats, 2019) stating the spatial importance of seasonality.

Domestic literature further deepens the understanding of this issue in the Croatian context. Ćorluka and Vukušić (2017) quantify the level of seasonality in Croatia and highlight extreme values of tourism concentration. The study by Kožić et al., (2013), based on ten-year monthly overnight stay data by accommodation type, shows that hotels exhibit the lowest level of seasonality, while private accommodation displays the highest. The authors conclude that the pronounced seasonality of Croatian tourism is primarily a consequence of the dominance of seaside tourism and the spatial concentration of accommodation capacity along the coast, combined with insufficiently developed off-season tourism products. The strong seasonality of Croatian tourism results from a long-standing orientation towards summer holidays and the prevalence of private accommodation in coastal areas. Such a structure limits the potential for year-round tourism development and increases the economic instability of local communities. In this context, hotel accommodation is recognized as a key driver of a strategic shift towards a more sustainable and less seasonal tourism model.

The synthesis of the reviewed literature indicates that the causes of seasonality are multifaceted and highly context-dependent; however, it consistently confirms a clear and significant relationship between accommodation structure and seasonality intensity. Despite the extensive literature, there is a relative lack of empirical studies that directly and systematically examine the relationship between accommodation structure and seasonality at the destination level, which further justifies the relevance and scientific contribution of the present study.

The relevance of this research is further reinforced by the specific characteristics of the study area. Adriatic Croatia represents one of the most intensively touristic regions in the broader Mediterranean context, characterized by strong spatial and temporal concentration of tourism activity (Eurostat, 2026). The tourism supply in the region is predominantly oriented towards seaside leisure tourism, based on natural resources of sea, sun, and coast, and strongly concentrated in the summer months. Such an orientation results in a high concentration of tourism demand within a relatively short time period, making seasonality one of the key structural characteristics of tourism sector performance. Pronounced seasonality in Adriatic Croatia is not only an economic issue but is also directly associated with overtourism and a range of related negative consequences. During peak months, there is excessive pressure on transport and utility infrastructure, increased strain on space and the environment, and a deterioration in the quality of life of the local population (Perles-Ribes et al., 2017; Romão, 2020). At the same time, a large share of accommodation and infrastructure capacity remains underutilized during the off-season, indicating structural inefficiencies in the existing tourism model (Rosselló Nadal & Sansó, 2017). The importance of this study is further enhanced by the fact that the accommodation structure in Adriatic Croatia is dominated by private accommodation, which is typically strongly linked to seasonal summer demand (Kožić, et al., 2013; Adamiak, 2018). The selection of Adriatic Croatia as the study area enables a clearer identification of the relationship between the dominant tourism product, accommodation structure, and seasonality intensity, under conditions where the negative effects of seasonality and overtourism are particularly pronounced. Accordingly, the study contributes both to the scientific understanding of structural determinants of seasonality and to the empirical basis for policy design aimed at restructuring accommodation supply, extending the tourism season, and reducing the negative impacts of overtourism in Dalmatian destinations.

In line with the research aim and theoretical framework, the following hypotheses are proposed:

H1: Hotel accommodation in Adriatic Croatia exhibits a statistically significantly lower level of seasonality compared to other types of accommodation, measured by the Gini coefficient.

H2: Destinations in Adriatic Croatia with a higher share of hotel accommodation achieve lower overall tourism seasonality compared to destinations dominated by private accommodation.

2. METHODOLOGY

The study is designed as a quantitative, cross-sectional empirical analysis aimed at examining the relationship between accommodation structure and the level of tourism seasonality in coastal destinations. The methodological approach is based on deductive hypothesis testing logic, whereby empirical data are used to verify theoretically grounded assumptions regarding the structural determinants of seasonality. Such an approach is commonly applied in economic and tourism research that investigates the relationship between structural characteristics of supply and market outcomes (Creswell, 2018; Bryman, 2016).

The unit of analysis is the tourism destination at the city/municipality level in Adriatic Croatia. The study includes 45 destinations that generate significant tourism flows and exhibit a differentiated accommodation structure. The sample was constructed based on the availability of official statistical data on monthly overnight stays by type of accommodation. The inclusion criteria were the availability of complete data for the observed year, the presence of both hotel and other forms of accommodation, and the relevance of the destination within the national tourism system. This approach corresponds to analytical sampling in regional and tourism economics research (Wooldridge, 2016).

The data used in the analysis were obtained from official statistical sources (e.g., national tourism statistics) and include monthly overnight stays in hotel accommodation, monthly overnight stays in other types of accommodation, total overnight stays, and the structure of accommodation capacity by type. Secondary data were used because they ensure a high level of reliability and comparability, which is a standard practice in seasonality research (Butler, 2001; Koenig & Bischoff, 2005).

Tourism seasonality, the dependent variable of the study, is operationalised using the Gini coefficient, which measures the degree of concentration in the distribution of overnight stays throughout the year. The Gini coefficient is defined as:

$$G = \frac{2\sum_{i=1}^{n} i * x_i - (N+1)\sum_{i=1}^{n} x_i}{N\sum_{i=1}^{n} x_i}$$

where n represent the number of months in year (in this case number of months = 12), i month (i.e. 1,2,3…12), xi monthly tourist overnight stays.

The values of the Gini coefficient range from 0 (complete equality) to 1 (maximum concentration). The application of the Gini coefficient in seasonality analysis is widely accepted in tourism literature, as it enables the quantification of tourism flow concentration during peak months (Lundtorp, 2001; Rosselló Nadal & Sansó, 2017). In this study, three variants of the coefficient were calculated: Gini_hotels**,** Gini_other, and Gini_total.

The main independent variable is the share of hotel accommodation in total accommodation capacity (%). It is calculated as the ratio of hotel capacity to the total accommodation capacity of a destination. This variable represents a structural indicator of the destination development model.

The selection of hotel accommodation share as the primary independent variable is theoretically grounded in previous studies that identify accommodation structure as one of the key determinants of tourism seasonality (Capó Parrilla et al., 2006; Duro & Turrión-Prats, 2019). The study intentionally applies a parsimonious model in order to isolate and directly assess the structural effect of accommodation composition on destination seasonality. Given the exploratory nature of the research and the relatively limited sample size, the inclusion of a single structural predictor enables clearer interpretation of the relationship between accommodation structure and seasonal concentration.

Nevertheless, tourism seasonality is a multidimensional phenomenon influenced by numerous additional factors, including destination size, accessibility, level of urbanization, tourism product diversification, transport connectivity, and broader regional development characteristics. Consequently, the possibility of omitted variable bias cannot be fully excluded. Although the present model focuses specifically on accommodation structure as the main explanatory factor, the results should therefore be interpreted as indicating a significant structural association rather than a fully exhaustive explanation of seasonality determinants.

Data analysis was conducted in several steps. First, basic descriptive statistics were calculated, including the arithmetic mean, standard deviation, minimum and maximum values, and median. Descriptive analysis provided an initial insight into data distribution and sample heterogeneity.

To test differences in seasonality between hotel and non-hotel accommodation, a paired-samples t-test was applied, as the measurements refer to the same destinations. The assumption of normality of differences was tested using the Shapiro–Wilk test. Effect size was assessed using Cohen's d, with the following benchmarks: 0.2 (small effect), 0.5 (medium effect), and 0.8 (large effect).

The relationship between the share of hotel accommodation and overall seasonality was analyzed using Pearson's correlation coefficient (r). Pearson's coefficient is appropriate for examining linear relationships between two continuous variables. The level of statistical significance was set at $\alpha = 0.05$. To assess the impact of accommodation structure on seasonality, a simple linear regression model was employed:
$Gini_total = \beta_0 + \beta_1 (Hotel_share) + \varepsilon$

The regression coefficient (β_1), coefficient of determination (R^2), and statistical significance of parameters were estimated. Regression analysis enables the quantification of the effect of the independent variable on the dependent variable and the assessment of explained variance.

3. RESULTS

The study included 45 destinations in Adriatic Croatia. Tourism seasonality was measured using the Gini coefficient across three categories: hotel accommodation, other types of accommodation, and total accommodation capacity. Table 1 presents the basic descriptive statistics.

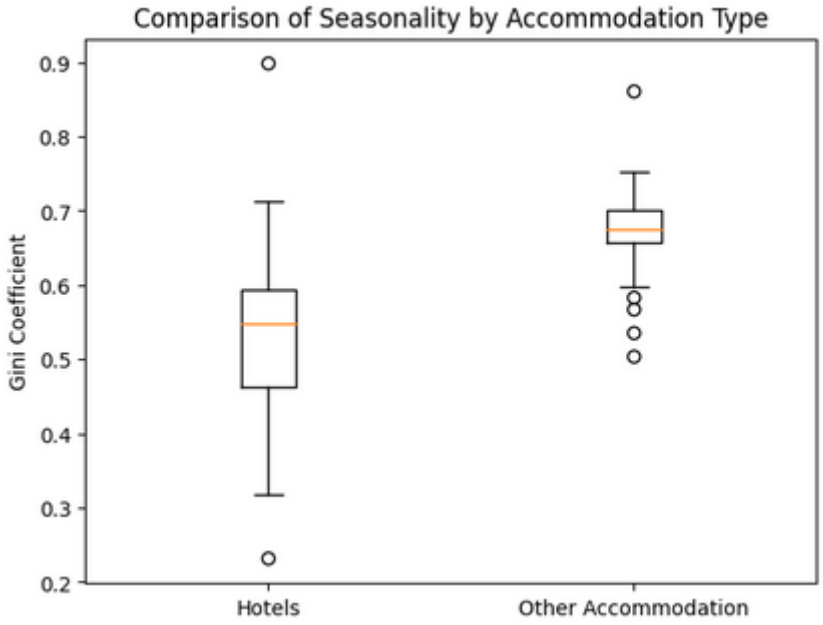
Table 1: **Descriptive statistics of Gini coefficients (N = 45)**

Variable	M	SD	Min	Max	Median
Gini – hotels	0,532	0,115	0,232	0,898	0,548
Gini – other	0,671	0,058	0,504	0,861	0,674
Gini – total	0,631	0,065	0,444	0,722	0,645

Source: author.

The results indicate pronounced differences in seasonality levels across accommodation types. The average seasonality of the hotel sector (M = 0.532) is substantially lower compared to other forms of accommodation (M = 0.671). At the same time, the hotel sector exhibits greater dispersion of values (SD = 0.115), suggesting higher heterogeneity in business models across destinations. The box-plot visually confirms a clear distinction between the distributions. Overall destination seasonality averages 0.631, confirming that the Croatian coastal area is characterized by a high concentration of tourism activity within a limited period of the year.

Figure 1: **Box-plot comparison of seasonality by accommodation type**



Source: author.

Hypothesis Testing (H1)

H1: Hotel accommodation in Adriatic Croatia exhibits a statistically significantly lower level of tourism seasonality compared to other forms of accommodation, as measured by the Gini coefficient.

Given that the analysis involves a comparison of two related measures within the same destinations, a paired-samples t-test was applied. The assumptions were tested, and normality of the distribution of differences was assessed using the Shapiro–Wilk test:
$p = 0.116$
Since $p > 0.05$, the assumption of normality was not violated, and the use of a parametric test was justified.
t-test results
$t(44) = -9.16$
$p < 0.001$
Cohen's $d = -1.37$
The effect size (Cohen's d) of −1.37 indicates a very large effect according to Cohen's classification.

The results indicate a statistically highly significant difference between the seasonality of hotel and non-hotel accommodation. The negative sign of the t-statistic confirms that the Gini coefficient for hotel accommodation is consistently lower than that of other accommodation types. Given the extremely large effect size, the difference is not only statistically significant but also practically meaningful. Accordingly, Hypothesis H1 is supported. The hotel sector in the Croatian coastal region operates with a more even distribution throughout the year compared to private and other forms of accommodation.

Hypothesis Testing (H2)

H2: Destinations in Adriatic Croatia with a higher share of hotel accommodation achieve lower overall tourism seasonality compared to destinations dominated by private accommodation.

The correlation analysis using Pearson's coefficient indicates:
$r = -0.431$
$p = 0.003$

The results show a statistically significant moderate negative relationship between the share of hotel accommodation and overall seasonality. Destinations with a higher proportion of hotels exhibit lower Gini coefficient values, indicating a more even distribution of tourism flows throughout the year.

A simple linear regression was conducted, with the total Gini coefficient as the dependent variable and the share of hotel accommodation as the independent variable.
Model results
$R^2 = 0.186$
$\beta = -0.295$
$p = 0.003$

The model is statistically significant and explains 18.6% of the variance in overall seasonality. The negative regression coefficient indicates that an increase in the share of hotel accommodation leads to a reduction in seasonality. Specifically, a 10-percentage point increase in the share of hotels is associated with an average decrease in the Gini coefficient of approximately 0.029. Accordingly, Hypothesis H2 is supported. Destinations with a higher share of hotel capacity exhibit lower overall tourism seasonality.

4. DISCUSSION

The results of this study confirm that tourism seasonality in the Croatian coastal region has a pronounced structural component. The empirical findings indicate two key patterns: (1) hotel accommodation exhibits statistically significantly lower seasonality compared to other forms of accommodation, and (2) a higher share of hotel capacity within the accommodation structure is associated with lower overall destination seasonality.

These findings support contemporary theoretical approaches that conceptualize seasonality not solely as a climatic or demand-driven phenomenon, but as an outcome of the interaction between institutional structures, organizational capacity, and destination governance models. Within Butler's (1980) Tourism Area Life Cycle framework, destinations with a higher share of hotel accommodation may be interpreted as more mature or consolidated systems, characterized by higher levels of professionalization and market diversification. In contrast, destinations dominated by private accommodation reflect characteristics of an expansion phase, where a predominantly seasonal, summer-oriented tourism model prevails. The results are consistent with a range of international studies examining structural determinants of tourism seasonality.

The findings of this study are closely aligned with previous empirical research conducted in Mediterranean tourism destinations. The lower seasonality observed in hotel accommodation confirms the results of Capó Parrilla et al., (2006), who demonstrated that destinations with a higher share of hotel capacity in the Balearic Islands exhibit more stable annual

tourism dynamics. Similarly, López-Bonilla and López-Bonilla (2006) emphasized that hotels are more capable of mitigating seasonal fluctuations through pricing strategies, contractual arrangements with tour operators, and the development of off-season tourism products. The present study extends these findings by providing destination-level evidence from Adriatic Croatia using the Gini coefficient as a direct measure of seasonal concentration. The results are also consistent with Kožić et al., (2013), who identified private accommodation as the accommodation type with the highest level of seasonality in Croatia. While their research focused primarily on descriptive patterns of overnight stays by accommodation type, the present study additionally quantifies the structural relationship between accommodation composition and overall destination seasonality through correlation and regression analysis. In this way, the paper contributes additional empirical evidence supporting the argument that accommodation structure represents a significant determinant of seasonal concentration.

The particularly strong effect size observed in H1 confirms that the difference between accommodation types is not marginal, but structurally significant. Likewise, an R^2 value of 18.6% indicates that nearly one-fifth of the variability in seasonality is explained by accommodation structure. Compared to international literature, this represents a methodologically robust and theoretically meaningful pattern consistent with broader Mediterranean seasonality models.

The Croatian case largely follows the broader Mediterranean tourism pattern characterized by strong dependence on seaside tourism and high concentration of demand during summer months (Duro & Turrión-Prats, 2019). However, Adriatic Croatia also represents a specific structural deviation within the Mediterranean context due to the exceptionally high dominance of private accommodation. Unlike some Mediterranean destinations where hotel-based tourism remains the dominant development model, Croatian coastal tourism has experienced rapid expansion of apartment and household accommodation over recent decades. This structural specificity intensifies seasonal concentration and contributes to stronger fluctuations between peak and off-peak periods. Therefore, the Croatian case simultaneously confirms general Mediterranean seasonality patterns while also illustrating the consequences of an accommodation structure heavily oriented toward private lodging.

Although comparable to other Mediterranean destinations, the Croatian context exhibits a specific structural characteristic: an exceptionally high share of private accommodation. This structure generates strong tourism concentration in July and August, low capacity utilization in the off-season, increased revenue volatility, and significant infrastructural pressure during peak months. The dominance of private accommodation can thus be interpreted as a development model driven by rapid capacity expansion, but with limited institutional mechanisms for season extension.

The findings contribute to contemporary theoretical perspectives that interpret tourism seasonality as a structural-economic phenomenon shaped not only by demand dynamics and climatic conditions, but also by the organizational composition of tourism supply. The results demonstrate that accommodation structure represents an important determinant of seasonal concentration and destination resilience.

Furthermore, the study provides a quantitative estimation of structural influence. The regression analysis shows that accommodation structure explains nearly one-fifth of the variance in seasonality across destinations. This represents one of the first attempts to quantify the magnitude of the relationship between accommodation composition and seasonal concentration in the Croatian context. It provides empirical support for the argument that seasonality is shaped not only by market cycles but also by the structural configuration of tourism supply.

CONCLUSION

The aim of this study was to determine whether there is a statistically significant difference in seasonality between hotel and other forms of accommodation, and to examine the impact of accommodation structure on overall destination seasonality. The empirical results unequivocally confirm that hotel accommodation exhibits significantly lower seasonality compared to other types of accommodation. The difference between accommodation types is also of substantial practical significance. Furthermore, a higher share of hotel accommodation is associated with lower overall destination seasonality, and accommodation structure explains nearly one-fifth of the variability in seasonality across coastal destinations. These findings confirm that seasonality in the Croatian coastal region is not solely the result of climatic and demand-side factors, but is to a significant extent structurally determined by the configuration of accommodation development.

This study contributes to the theoretical debate on tourism seasonality by reframing it as a structural-economic phenomenon rather than exclusively a climatic or demand-driven one. While classical approaches primarily explain seasonality through natural conditions, school holidays, and demand cycles, the results empirically demonstrate that the organizational and institutional structure of tourism supply is a key determinant of seasonal concentration. The study extends the existing theoretical framework in three directions: (1) by conceptualizing seasonality as a function of accommodation structure, (2) by providing quantitative evidence of differences in seasonality across accommodation types, and (3) by highlighting the role of institutional professionalization in shaping annual tourism dynamics.

The empirical contribution of this research lies in the disaggregation of seasonality analysis by accommodation type. Unlike most studies that examine seasonality at the aggregated destination or national level, this research measures seasonality separately for hotel accommodation, other accommodation types, and total accommodation. This approach enables a more

precise identification of structural differences and represents a methodological advancement over aggregated models. The empirical evidence suggests that the dominance of private accommodation generates higher seasonal concentration, whereas a greater share of the hotel sector contributes to a more even distribution of tourism flows throughout the year. These results have direct implications for tourism development and investment policy. If the objective is to reduce seasonality and enhance the sustainability of the tourism system, it is necessary to encourage investment in the hotel sector, support projects based on year-round business models, and promote the development of integrated tourism complexes with diversified facilities. This does not imply a restrictive approach toward private accommodation, but rather a strategic rebalancing of the overall supply structure.

The findings also suggest the need for a differentiated regulatory framework. Destinations characterized by extreme seasonality and a high concentration of private accommodation may require stricter control over further capacity expansion, while in more urbanized and developed destinations, qualitative transformation of existing private accommodation could be encouraged. Tourism policy focused solely on increasing arrivals and overnight stays, without considering the structural composition of supply, may in the long run deepen seasonal imbalances. Therefore, seasonality should be treated as a strategic development indicator, and accommodation structure as a key instrument for its management. In this sense, the results of this study provide an empirical basis for redefining the development paradigm of Croatian coastal tourism—from quantitative growth toward a structurally balanced and sustainable development model.

Finally, the study contributes to the contextual understanding of the Croatian tourism model. Coastal tourism in Croatia is characterized by a strong dominance of private accommodation. The findings demonstrate that such a development model generates higher seasonal concentration, whereas a greater share of hotel capacity contributes to a more even distribution of tourism flows throughout the year. In this way, the study enhances understanding of post-socialist and Mediterranean tourism destinations in which apartment-based accommodation represents a dominant development trajectory.

Ultimately, the study suggests that reducing tourism seasonality in Mediterranean coastal destinations cannot be achieved solely through marketing or demand-management measures, but requires a structural transformation of the accommodation model toward more professionalized and year-round forms of tourism supply.

The findings of this study have important managerial and tourism policy implications, particularly for Mediterranean coastal destinations characterized by strong seasonal concentration and a dominant share of private accommodation. In the short term, policymakers should focus on measures aimed at extending tourism activity beyond the peak summer season. Such measures may include financial incentives for year-round hotel operations, support for the development of congress, health, sports, and cultural tourism products, as well as targeted promotional campaigns directed toward off-season market segments. Destination management organizations should also encourage stronger cooperation between hotels, local governments, and transport providers in order to improve destination accessibility and event programming during the shoulder and off-season periods.

At the managerial level, tourism stakeholders should prioritize the diversification of tourism demand and the development of products less dependent on climatic conditions. Hotels, due to their higher organizational and operational capacities, can play a leading role in reducing seasonality through dynamic pricing strategies, partnerships with tour operators, and investments in facilities that enable year-round operations. At the same time, the private accommodation sector should be encouraged to improve quality standards and gradually integrate into more professionalized destination management systems.

From a long-term strategic perspective, the results suggest the need for structural transformation of the tourism development model in Adriatic Croatia. Current tourism policy frameworks, including sustainable tourism and overtourism management strategies promoted at both European Union and national levels, increasingly emphasize balanced territorial development, reduction of environmental pressure, and year-round tourism activity. In this context, accommodation structure should be recognized as an important policy instrument rather than merely a market outcome. Future tourism development strategies should therefore aim to achieve a more balanced accommodation mix by encouraging investment in higher-category hotels and integrated tourism facilities while simultaneously introducing more effective regulation of uncontrolled expansion of private accommodation in highly seasonal destinations. Such an approach could contribute not only to reducing seasonality, but also to improving destination resilience, economic stability, and long-term sustainability.

Despite the robust findings, the study has several limitations that should be acknowledged. First, the analysis is based on cross-sectional data for a single observation period, which limits the ability to capture temporal dynamics and long-term structural changes in tourism seasonality. As a result, the findings identify structural associations between accommodation composition and seasonality, but they do not allow for causal interpretation of changes over time. Future research should therefore apply longitudinal or panel-data approaches in order to examine how transformations in accommodation structure influence seasonality dynamics across different development phases of tourism destinations.

Second, the empirical model includes only one primary explanatory variable and does not control for other potentially important determinants of seasonality, such as destination size, accessibility, airport connectivity, tourism product diversification, degree of urbanization, or spatial concentration of tourism infrastructure. Although the study intentionally focuses on accommodation structure as the central explanatory factor, future studies could employ multivariate and hierarchical regression models in order to provide a more comprehensive explanation of seasonality patterns.

Finally, the research is limited to Adriatic Croatia, which represents a highly specific Mediterranean tourism context characterized by strong dependence on seaside tourism and a dominant share of private accommodation. Future comparative research could therefore examine whether similar structural relationships between accommodation composition and seasonality exist in other Mediterranean destinations, island regions, or urban tourism systems. Comparative international studies would contribute to a broader understanding of whether the Croatian tourism model represents a typical Mediterranean pattern or a structurally distinctive case.

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