

# SPATIAL AND STATISTICAL ANALYSIS OF TOURISM INDICATORS – CONTRIBUTION TO TOURISM ACCOMMODATION PLANNING

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## ABSTRACT

**Introduction:** Considering the importance of tourism in the region of Viseu Dão Lafões which is differentiated by cultural values, thermal resources and wine-growing heritage, technologies of spatial and statistical analysis are essential for strategic planning in tourism in the region.

**Objectives:** Analyze and map the tourism supply and demand, by municipality, regarding annual tourism indicators, with integration of GIS and statistical analysis.

**Methods:** We used data of the INE tourism indicators by municipality and the CAOP2018. GIS was used to delimit the study area, georeferentiation and spatial analysis. Descriptive analysis of differences in tourism indicators between municipalities was integrated applying Kruskal-Wallis test ( $\alpha = 5\%$ ) and cluster analysis. The software SPSS (version 25) and ARCGIS (version 10.5) were used.

**Results:** In the tourism accommodation sector, there are statistically significant differences between municipalities in accommodation capacity, number of guests and overnight stays, total revenue and net bed occupancy rate, especially the differences from Carregal do Sal and Oliveira de Frades to S. Pedro do Sul and Viseu. By cluster analysis applied to every and each indicator under study, the municipalities can be grouped in 4 clusters, despite individual differences. We produced digital cartography to support the main results from spatial and statistical analysis.

**Conclusion:** Despite tourism growth in the region, our study shows statistical differences in the indicators analyzed between municipalities.

**Keywords:** tourism indicators; accommodation; Viseu Dão Lafões; cluster analysis; GIS.