

Time Series Forecasting of Tourist Overnights in Slovakia, Hungary, and the Czech Republic: Implications for Economic Performance

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Abstract:

Tourism is a key economic sector with a positive impact on national economic development, also in countries without direct access to coastal tourism. This study focuses on the time series forecasting of tourist overnights in Slovakia, Hungary, and the Czech Republic over the period 2011–2025, based on Eurostat monthly data for tourism. Using ARIMA-based models, the analysis aims to identify seasonal and long-term trends in tourism demand and to produce short-term forecasts for each country. The selection of overnight stays as the main indicator reflects its strong correlation with tourist spending and broader economic impact. In addition to forecasting, the study contextualizes tourism development with national GDP trends to demonstrate the relative importance of tourism activity in the three selected Central European countries. By combining statistical modeling with economic interpretation, the study contributes to more informed policy-making and strategic planning in the post-pandemic tourism landscape.

Keywords:

Time series, ARIMA, SARIMA, Tourism, Slovakia, Czech Republic, Hungary.