

## Forecasting Unemployment Rate in Selected European Countries Using Smoothing Methods

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**Abstract :** The aim of this paper is to select the most accurate forecasting method for predicting the future values of the unemployment rate in selected European countries. In order to do so, several forecasting techniques adequate for forecasting time series with trend component, were selected, namely: double exponential smoothing (also known as Holt's method) and Holt-Winters' method which accounts for trend and seasonality. The results of the empirical analysis showed that the optimal model for forecasting unemployment rate in Greece was Holt-Winters' additive method. In the case of Spain, according to MAPE, the optimal model was double exponential smoothing model. Furthermore, for Croatia and Italy the best forecasting model for unemployment rate was Holt-Winters' multiplicative model, whereas in the case of Portugal the best model to forecast unemployment rate was Double exponential smoothing model. Our findings are in line with European Commission unemployment rate estimates.

**Keywords :** European Union countries, exponential smoothing methods, forecast accuracy unemployment rate

**Conference Title :** ICMBSE 2015 : International Conference on Management, Behavioral Sciences and Economics

**Conference Location :** Lisbon, Portugal

**Conference Dates :** April 16-17, 2015