

Forecasting tourist arrivals in South Africa

by

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ABSTRACT:

The aim of this paper is to model and forecast tourism to South Africa from the country's main international tourism markets. These include Great Britain, Germany, The Netherlands, the United States of America and France. Tourism to South Africa has grown substantially since the first democratic elections in 1994. It is currently the third largest industry in the country and a vital source of foreign exchange earnings. Tourist arrivals continued to grow yearly, and have shown some resilience to a number of emerging market crises including the terrorist attacks in the USA. Since univariate time series modelling has proved to be a very successful method for forecasting tourist arrivals, it is also the method employed in this paper. The naïve model is tested against a standard ARIMA model, as well as the Holt-Winters exponential smoothing and seasonal-non-seasonal ARIMA models. Forecasting accuracy is assessed using the mean absolute percentage error, root mean square error and Theill's U of the various models. The results show that seasonal ARIMA models proved to deliver the most accurate predictions of arrivals over three time horizons. This paper is the first tourist arrivals forecast using South African data for the country as a whole, and therefore it forms an interesting case study as a long haul and growing tourist destination.

Key words: forecasting, tourist arrivals, South Africa, ARIMA, SARIMA, Holt-Winters