

Abstract

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This paper compared the performance of two forecasting models (Seasonal ARIMA and Exponential smoothing) in an attempt to identify the model that fits properly in forecasting tourist arrivals in a dynamic tourism industry in Tanzania. A two-staged approach to forecasting was carried out using monthly data for the period of 2000 to 2009. The models were assessed in similarly structured setting at the outset, and then best models identified at this level were compared in a differently structured setting. The results show that Seasonal ARIMA (4,1,4)(3,1,4)₁₂ and Holt-Winters multiplicative smoothing method are effective in forecasting tourist arrivals in Tanzania in a similarly structured setting. However, when the two models were compared under different structures, the performance of Holt-Winters multiplicative smoothing method outstripped that of Seasonal ARIMA(4,1,4)(3,1,4)₁₂. This suggests that Holt-Winters multiplicative smoothing method with Alpha (0.01), Delta (0.11) and Gamma (0.11) is more effective in forecasting tourist arrivals in Tanzania in the short run and it can be used to aid planning processes in the tourism industry. Moreover, the seasonality pattern that characterizes tourist arrivals in Tanzania highlights the need to promote more of local tourism so as to lessen the negative impacts associated with it.