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FORECASTING DOMESTIC GUEST NIGHTS IN HILL COUNTRY OF SRI LANKA

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ABSTRACT

The increasing of domestic traveling shows significant improvements. The Hill Country becomes one of the highest occupied regions by the domestic tourist in Sri Lanka. Domestic travelers may travel to Hill Country not only the leisure; there could be many more purposes. The study was focused on forecasting occupancy guest nights of domestic tourist in Hill Country. Monthly data of domestic guest nights for the period of January 2008 to December 2016 were obtained from annual reports of 2008 -2016 published by Sri Lanka Tourism Development Authority (SLTDA). The Seasonal Autoregressive Integrated Moving Average (SARIMA) models were tested for forecasting. The Anderson–Darling test, Auto-Correlation Function (ACF) and Ljung-Box Q (LBQ)-test were used to test the validation criterion and fit the model. Forecasting ability of the models was assessed by relative and absolute measurements of errors. The results of the study revealed that ARIMA (1,0,0)(0,1,1)6 model satisfied all validation criterion. The measurements of errors are very low in validation and verification. The results of the study concluded that the ARIMA (1,0,0)(0,1,1)6 model is suitable for forecasting occupancy guest nights. Therefore, future night occupancy can be forecasted by past night occupancy, past errors and seasonal components. The results can be used for strategy development to maximize the benefits of the tourism industry in Hill Country. New product development and increasing the volume of products can be decided by forecasting occupancy guest nights. The results will be useful for financial managers to estimate cash/ credit flow, multiple expenses that will be generated in different departments such as food and beverages, laundry, transport, and rooms. High occupancy increase higher volume of garbage. Therefore, authorities should plan for efficient and effective solid management practices. In addition, they have to work out safety, security and traffic control measures during high occupancy period to protect tourist from various forms of threats and minimize the traffic congestions. The data series of this study shows a wave-like pattern. Therefore, it is recommended to test the Sama Circular Model (SCM), in order to see whether the forecasting ability improves.

Keywords: Occupancy guest nights, Residuals, SARIMA