

In the past, Kenya's Tourist data has been analysed by among others, Mutiso (1982) who carried out Spectral Analysis to the monthly data for a series covering 10 years (1971-1980). Mutiso came up with general conclusion on cycles experience by the tourism industry in Kenya. Onyango (1993) fitted non-linear model to the tourist data before testing it for linearity. In an effort to confirm or disapprove their findings we decided to analyse a longer series, that is, to collect and use data for the years 1971 to 1990. It is in this process that we encountered the problem of missing data. Monthly data for the year 1984 could not be located in the Kenya central Bureau of Statistics (CBS) records, but quarterly totals were available. Our immediate problem was to fill in the block of missing values and as such most of the work in this project point to this direction.

In this dissertation we have used the two known segments [(1971 - 1983) and (1985 - 1990)] of tourist data to estimate the block of missing values. We have considered two methods under regression (indirect) imputation methods and imputed the missing values from eventual forecasts. We have showed how two forecasts arising from the two regression methods can be combined to come up with more accurate estimates. We have also suggested a method of adjusting the estimates to incorporate the information from the already known quarterly totals.

We have proposed simpler and direct method of imputing the missing values and we have showed that the final adjusted estimates from the direct and the indirect methods are similar. Finally we modelled the two data sets arising from the direct and the indirect imputation and generated eventual forecasts, which further showed that the two methods give almost similar estimates.