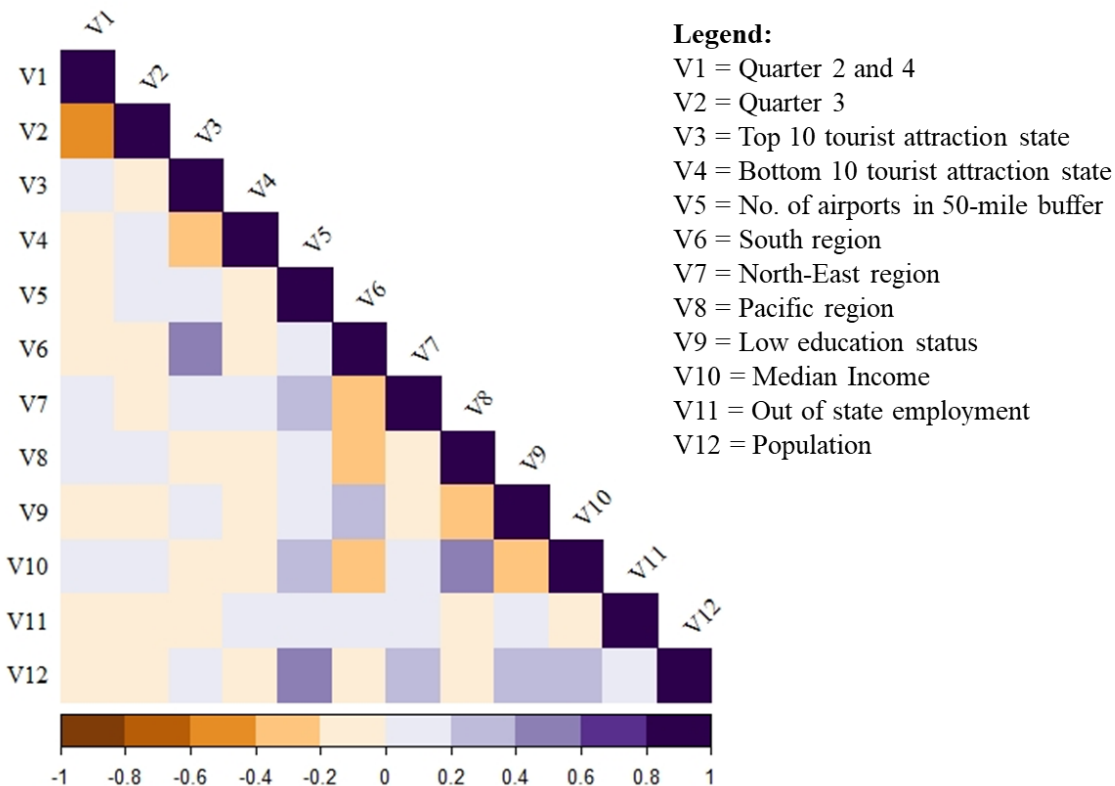


## Supplementary Material for the paper titled “Understanding the Factors Affecting Airport Level Demand (Arrivals and Departures) Using a Novel Regression Approach”

### Multicollinearity Analysis

Given the estimated model is a non-linear model we specifically examine the variance covariance matrix of the estimated model. The variance covariance matrix did not reveal any high covariance values between the different independent variable specific parameters. Further, we conducted a Pearson correlation coefficient analysis to illustrate that the independent variables employed in the final specification do not exhibit significant correlation. The results are plotted in Figure 1. From the comparison, we can clearly observe that apart from the quarter time period variables all other variables exhibit correlation below acceptable levels (about 0.5 maximum). For quarter variables, as the different quarters are part of the same temporal variable, the correlations observed are expected. Overall, from our variable analysis we can conclude that multicollinearity is not a major factor in our final model results.



**FIGURE 1** Pearson Correlation between the Variables