

This study is aimed at forecasting traffic on King Fahd Causeway which carries cross border traffic between Kingdoms of Saudi Arabia and Bahrain. Two concerns were identified in the above mentioned study, i.e. use of stock market indices for predicting daily traffic and use of Artificial Neural Networks (ANNs). Keeping the above factors in mind, the stock market prices of Saudi Arabia and Bahrain were used to predict weekly Average Daily Traffic (ADT) for border transport between these two countries. Moreover, the continuous collection of traffic data for long periods requires substantial resources and state-of-the-art technology for accurate traffic counts (Gramaglia et al., 2014). Moreover, time series traffic data was used in developing the prediction models by El-alfy et al. (2015) in their study, which is not feasible, as mentioned above. The data collection technologies are undergoing changes with time, but there is still a lack of integration between travel demand modelers and practice communities (Lee et al., 2016; Kisgyorgy and Vasvari, 2017). Regression models would be a better approach considering their explanatory powers established through statistical bases. The focus of this research was to investigate the effects of readily available non-traffic parameters on border transport prediction in this region. Furthermore, time-series data for predicting cross-border transport may not be viable since non-traffic parameters may cause unprecedented change in traffic pattern. Secondly, ANNs do not give insight about the relationship between the predicted value and its predictors.