

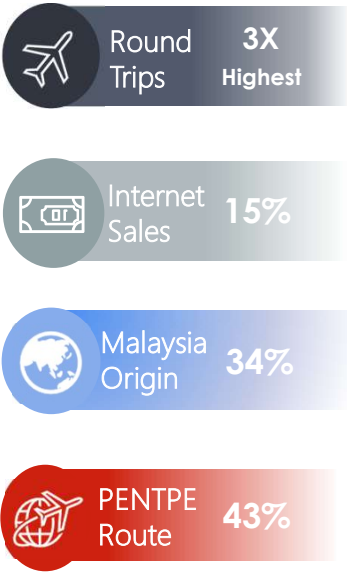
# Booking Completion Machine Learning

What influences customer buying behavior?

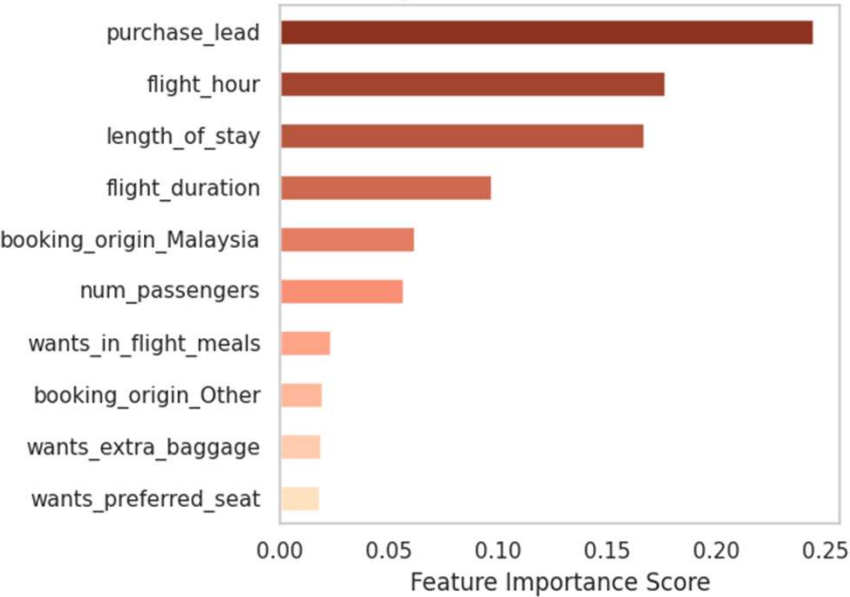


Analyzed 50,000 customer records to identify the patterns contributing to the 15% successful holiday booking conversions. With a goal of training a predictive model, our data was prepared for the development and evaluation of a machine learning that can provide a predictive utility to the team.

## Top Sale Conversion Rates Per Group



## Top Predictive Contributing Factors



## Model Performance

89% Accuracy Predicting No Sale Conversion (Precision & Recall)
38% Accuracy Predicting Sale Conversion (Precision & Recall)
➤ 225% Prediction Improvement (Sale Recall)
Reasonable performance given low conversion rate (Sale F1-Score: 0.37)
75% Successful identification of a favorable client (ROC AUC)