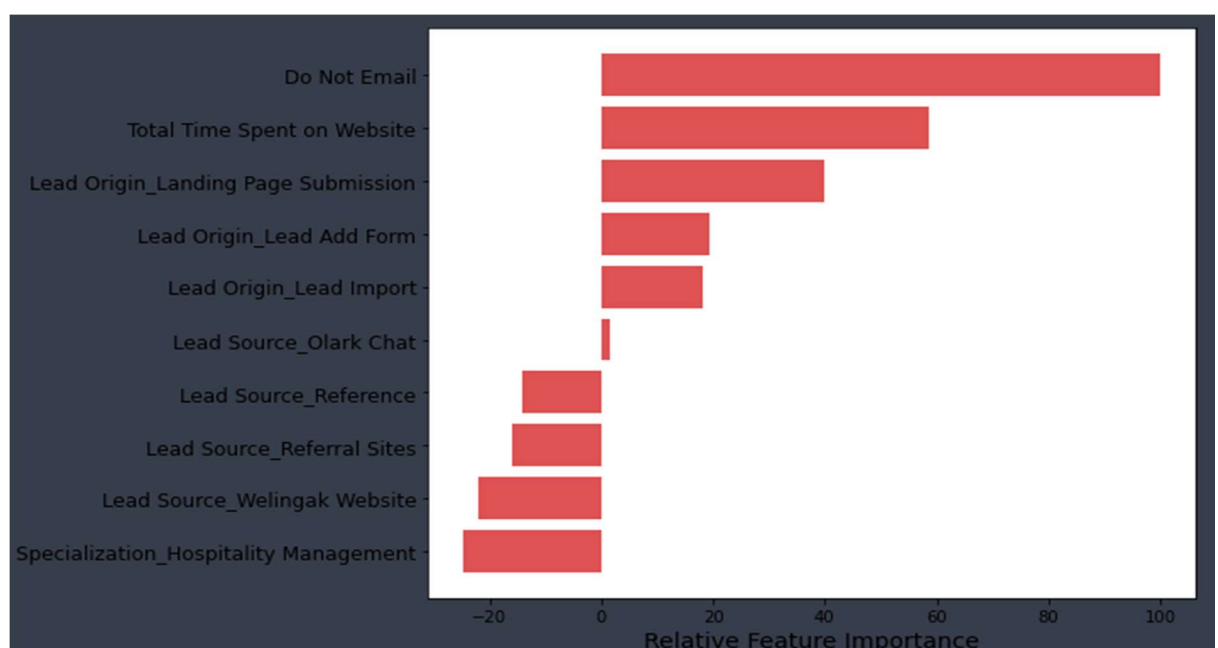


Summary

Analysis was conducted for X Education to find ways to get more industry professionals to join their courses. The basic data provided us with a lot of information about how the potential customers visit the site, the time they spend there, how they reached the site and the conversion rate.

Technical Approach:

- ❖ Read and Cleaning of the Data: The data was partially clean except for a few null values and the option "select" had to be replaced with a null value for better analysis. Few of the null values were changed to 'Others' to not lose much data. Although they were later removed while making dummies.
- ❖ EDA We performed Univariate and Bivariate analysis to identify the relationship between the data. Some of the modification and capping of the data was performed (outlier treatment).
- ❖ Dummy Variable Creation and Test Train Split: We performed the scaling of data using Standard scaler. The dummy variables were created, and original elements were removed.
- ❖ Model Building Firstly, RFE was done to attain the top 15 relevant variables. Later the rest of the variables were removed manually depending on the VIF values and p-value (The variables with $VIF < 5$ and $p\text{-value} < 0.05$ were kept). We then performed some iteration to identify the best model by removing variables and reached to a final model.
- ❖ Evaluation of Model A confusion matrix was made. Later, the optimum cut off value (using ROC curve) was used to find the accuracy, sensitivity and specificity which came to be around 80%, 75% & 83% respectively.
- ❖ Prediction was done on the test data frame and with an optimum cut off as 0.35 with accuracy, sensitivity and specificity of 80%, 75% & 83% respectively.
- ❖ Precision and Recall This method was also used to recheck and a cut off was found to be 0.40 with Precision around 74% and recall around 75%.



Conclusions:

- ❖ Increase user engagement with users receiving Emails
- ❖ Get Total Time Spent on Website increased by advertising and user experience which makes the customer engaging in the website as it contributes in higher conversion
- ❖ Improve the Welingark Website since this is affecting the conversion negatively
- ❖ Focus less on Hospitality Management Specialisation as it is majorily a physical service based industry ex Front desk, Cooking etc & cannot be learnt simply over an online course